REF. STACK 5

The NATION'S SCHOOLS

DEVOTED TO THE APPLICATION OF RESEARCH TO THE BUILDING, EQUIPMENT AND ADMINISTRATION OF SCHOOLS

MARCH

1928

Published by THE NATION'S SCHOOLS PUBLISHING CO., *Chicago*

"We have been using your No. 17 polisher and scrubbing machine for nearly two years in our school.

"The Finnell system has saved us over 50% in our labor and gives us a much cleaner floor. Before we got the Finnell, we employed twelve men to do what four men are now doing with your machine."

Yours very truly,
T. T. Wellons,
Supt. Bldgs.
North Carolina State College of Agriculture and Engineering.

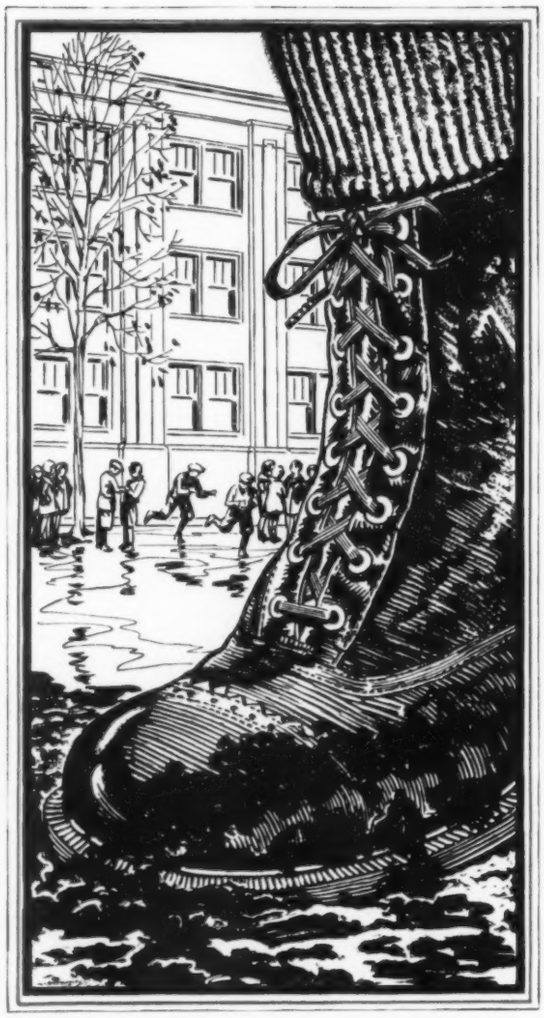
"We are pleased to recommend the Finnell Scrubbing and Polishing machine furnished us some time ago. It is doing very fine work."

SISTERS OF PROVIDENCE,
St. Mary of the Woods, Ind.

Now—If Ever, Come Trying Days

SPRING! Rain—mud—slush! Through streets and playground and right into the school tramp thousands of little feet, each with its burden of mud and filth. Literally pounds of dirt deposited on corridor and classroom floors. Left undisturbed, it will dry into dust and be blown into every corner of the room, permeating the entire atmosphere.

It is a situation no mother would put up with in her home for a moment. But it is a very real problem in every school—and multiplied a thousand-fold. Ordinary methods of cleaning simply cannot cope with it. Occasional mopping is a makeshift.



CLEAN *School Floors*
at a Saving

There is one sure and money-saving way to keep floors clean at all times and in any weather. More than five hundred colleges, universities and schools have already discovered it. Every year hundreds more adopt the electric way—the FINNELL way.

The FINNELL Electric Floor Machine can be used to scrub any type of floor. With powerful brushes, revolving over 200 times per minute, it removes every trace of dirt or discoloration from wood, marble, tile, terrazzo, rubber tile, linoleum, cork, mosaic, magnesite. Out of cracks, crevices, and depressions, comes dirt that could never have been routed by mopping or hand scrubbing. With incredible speed the FINNELL cleans easily under stationary desks—under tables, chairs, teachers' desks, etc.

Waxes, Polishes Too

By instant adjustment the FINNELL applies wax and polishes wood or linoleum floors to lustrous beauty. They are never left sticky or slippery. Floors cared for in this way have a much longer life of utility and attractiveness.

The FINNELL soon saves enough in time and labor to cover its original cost. After this, it becomes a low-upkeep investment that has enabled hundreds of schools to reduce their floor-maintenance budgets over half! There are eight models, enabling a FINNELL system of floor-maintenance to suit every school need. A complete system can be easily transported by automobile and *used for a group of schools*, thus reducing immediate equipment investment.

Send for Details and Estimate

Write today for an estimate of FINNELL System needed and possible saving. Enclose a description of floors, area, present cleaning methods. Address FINNELL SYSTEM, INC., 364 East St., Elkhart, Ind. (Factories Elkhart, Ind., Hannibal, Mo., and Ottawa, Can. District offices in principal cities of U. S. A.)

It Scrubs
It Polishes

FINNELL

It Oils
It Waxes

ELECTRIC FLOOR MACHINE

The Foundation of all that is Safe and Healthful in School Construction!

Light and Air

Proper planning understands the irreparable harm caused by poor lighting and improper ventilation and eliminates these barriers to the child's progress and future by specifying—

TRUSCON STEEL WINDOWS

for sunlight without glare and ventilation without draft.

Fireproofness

Proper planning recognizes the hazards of combustible construction — the enervating effects of noise-transmitting materials — the necessity for conserving the public's money and so specifies —

TRUSCON STEEL JOISTS

for fireproof, soundproof, economical floor construction.

Plaster Bases

Proper planning seeks permanence and fire-safeness in partitions, walls and ceilings—to safeguard the child, perpetuate and retain the beauty of the building—and consequently specifies—

TRUSCON METAL LATH

the better base and reinforcement for every plaster need.

Steeldeck Roofs

Proper planning considers such problems as fuel consumption, radiation and weight of construction from the standpoint of low first cost as well as lowered maintenance costs and so specifies

TRUSCON "I" PLATE ROOFS

which can be insulated to any degree, and waterproofed.

Write for detail information and illustrated literature

TRUSCON STEEL COMPANY, YOUNGSTOWN, OHIO

Warehouses and Offices in all Principal Cities

The Truscon Laboratories, Detroit, Michigan

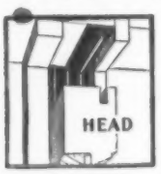
In Canada: Trussed Concrete Steel Company of Canada, Limited Walkerville, Ontario

1903 — TWENTY-FIVE YEARS OF PIONEERING AND LEADERSHIP — 1928

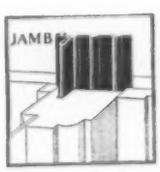
TRUSCON

Morgan Hall, Harvard College, Cambridge, Mass. McKim, Meade & White, Architects, New York City. Hegemann-Harris Company, Builders, New York City. Chamberlin-equipped throughout.

Does Temperature Entirely, or Does Wind Also Determine the Need of Weather Strips?



34 years' experience has proved Chamberlin Tongue-in-wood-Groove contact sound in principle and over 90% efficient. The groove is always of standard width, an important detail necessary to obtain effective weather strip installations.



Weather stripped windows should be practically airtight yet easy to operate. Chamberlin covers entirely the runways of sliding windows but raised track-like corrugations reduce sliding friction to a minimum.

Chamberlin equipment includes a newly patented metal-interlocking strip at meeting rails. Chamberlin installation practice requires that sash be properly dressed, trimmed and trued if necessary before Chamberlin is installed.

School buildings, with their necessity for large window areas, demand expert weather stripping if the structure is to be comfortable and healthful. Wind, even more than excessively cold temperatures, lies behind this need, for wind drives incessantly through every tiniest window and door crack, carrying the danger of draughts and the annoyance of dust and dirt. Wind multiplies the burden and fuel cost of every heating plant. But Chamberlin Weather Strips defeat wind by permanently sealing these cracks and they are reliably service-guaranteed by a million-dollar company of 35 years' experience in the field—a guarantee "good for the life of your school building."

Call our local factory branch for free estimates or write to—

CHAMBERLIN METAL WEATHER STRIP COMPANY
West Lafayette Boulevard, Detroit, Michigan

Over 100 Sales-Service Branches throughout the United States

In both lower and upper corners of sliding windows, Chamberlin Weather Strips are perfectly joined or mitred. Chamberlin design requires this operation—an installation detail necessary to obtain maximum weather tightness.

CHAMBERLIN WEATHER STRIPS
"SINCE 1893-THE STANDARD"

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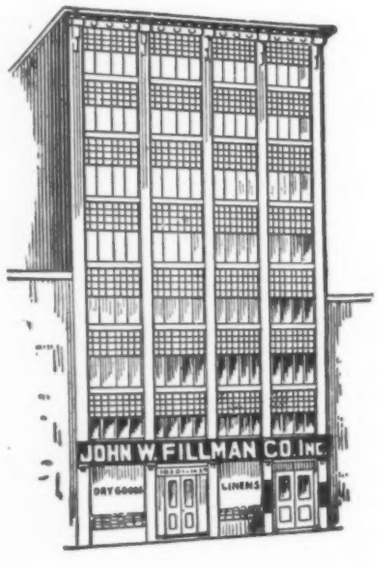
A SPECIAL OFFERING of ALL LINEN DAMASK at COTTON PRICES



Nothing ever quite satisfactorily takes the place of all linen damask for table wear.

All linen damask can be easily washed free of stains, which result cannot be obtained with any fabric containing cotton.

All linen damask gives that pleasing attractive appearance to your dining room table which cannot be equalled by any other fabric.

We just recently closed out the mill stock of over 24,000 yds. of all linen unbleached damask of a mill who has discontinued the manufacture of same, at a great loss to themselves.

We are offering these goods in several qualities at prices ranging **from $.70 to $1.00 per yard.**

Obtainable in dice, stripe, or floral patterns.

Write for samples and prices.

JOHN W. FILLMAN CO.

1020 Filbert Street **Philadelphia, Pa.**

UNIVENT VENTILATION often imitated but never duplicated

THE Univent, itself, is a complete individual ventilating machine, for drawing fresh air directly from out-of-doors—cleaning it—warming it to a comfortable temperature—and silently delivering it in such a manner that there is an agreeable air motion—but without drafts.

Today, thanks to the Univent, the principle of unit ventilation is nationally recognized. Naturally, many manufacturers are seeking to supply the market the Univent has created. But mark this. The results brought by Univent Ventilation are due to exclusive features of the Univent itself. They may be imitated but *cannot* be duplicated in other unit ventilators. Where the health, energy and mental efficiency of our children is at stake, ventilation should be purchased on proven results. To realize the epochal results of the Univent system, one need only refer to School Executives, Architects and Engineers everywhere who endorse it as the best, simplest and most economical.

UNIVENT
VENTILATION

Write for Book No. 21 explaining "Univent ventilation," and how you can have it in your school

THE HERMAN NELSON CORPORATION, *Moline, Illinois*

Builders of Successful Heating and Ventilating Equipment for over 20 Years

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Standard-ized

Cape Uniforms *for* Bands are most economical

STANDARD-IZED Cape Uniforms have earned the reputation for being the most economical band uniforms regardless of price, because of their unusual durability. Subjected to the most severe service, Standard-ized Capes are known to endure for five years or more.

Made in all class colors with caps to match

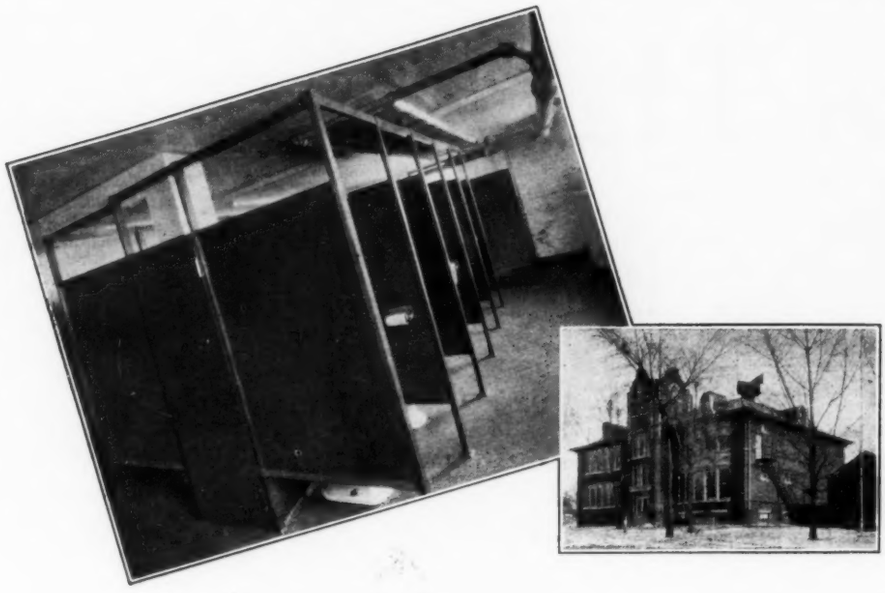
Send for samples, stating class colors.

STANDARD APPAREL CO.

Manufacturers of Band Cape Uniforms

1227 Prospect Ave., Cleveland, Ohio

WEISTEEL
TRADE MARK REGISTERED



Solving
The Rehabilitation Problem

During the recent convention of the Departments of Superintendence at Boston, a great many of the school executives who visited the Weisteel Exhibit were especially interested in Rehabilitation—particularly of toilet rooms in old buildings.

We were able to show them not only photographs of Weisteel installations that had solved this Rehabilitation problem in other schools, but actually demonstrate from a typical Weisteel installation, how Weisteel is particularly adapted to Rehabilitation of any toilet room requirements, in either new or old buildings.

We will be glad to send you information in regard to first cost, installation data, and how much time can be saved by using Weisteel compartments.

WEISTEEL
TRADE MARK REGISTERED
COMPARTMENTS

Toilet and Shower Compartments

HENRY WEIS MANUFACTURING CO., INC.
Elkhart, Indiana (Formerly Atchison, Kansas)

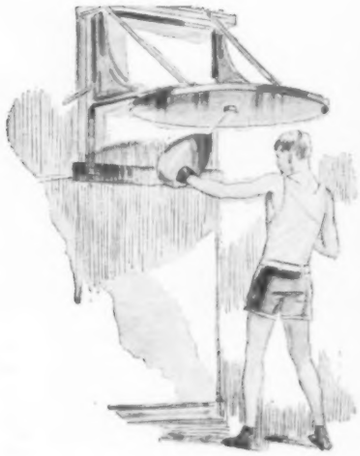
Dressing Room Partitions

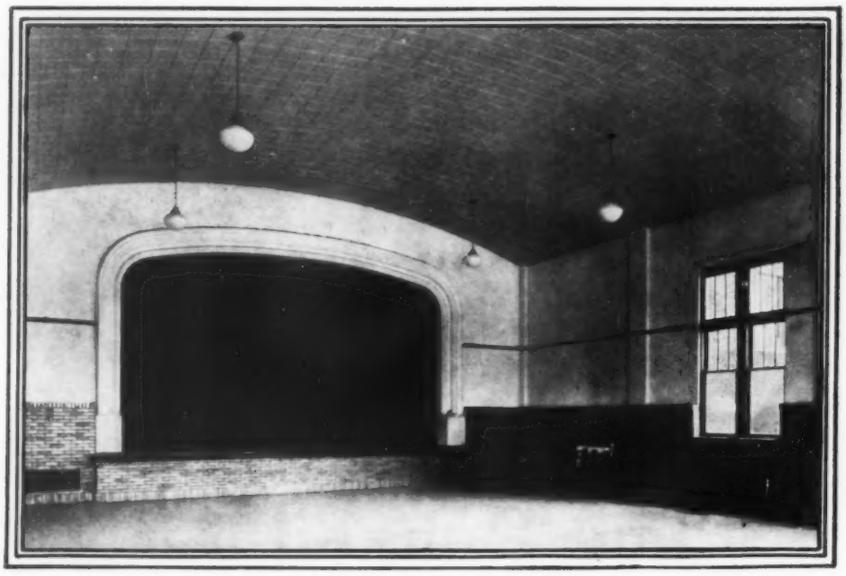
Hospital Cubicles

Branch Offices:
NEW YORK CHICAGO LOS ANGELES
BOSTON ATLANTA

Representatives in all Principal Cities
Established 1876

LESS NOISE *and* *Better Hearing* for your schools





Gymnasium-auditorium, School No. 34, Indianapolis, Indiana. Acousti-Celotex was applied here to quiet noise and confusion, and to eliminate unpleasant echoes. D. A. Bohlen & Son, architects; Chas. E. Wehr Company, Acousti-Celotex contractor.

Your students concentrate with greater ease and do better work when their classrooms, auditoriums, gymnasiums, etc., are quieted with Acousti-Celotex.

NOISE is a constant irritating factor in schools. It disturbs concentration and is a strain on the nerves. More than one sensitive youngster has failed in his schoolwork because of this undue nerve-wear. And noise is equally hard on teachers, for it distracts their attention and wears down their patience.

But you can easily spare your students this waste of mental energy. For Acousti-Celotex, applied to ceilings and walls of *any* school room, will reduce sound disturbances of *all* kinds. This strong fibre tile has remarkable sound-absorbing qualities. It creates quiet by the simple process of *swallowing-up* distracting noises and echoes.

Acousti-Celotex, installed in gymnasiums, will prevent noises arising there from reaching recitation and study rooms. Also the noisy confusion coming from school shops, corridors, cafeterias, chapels, band and chorus rooms is greatly reduced with this sound-absorbing tile.

And your school auditorium will be much easier to hear in, after Acousti-Celotex has been installed. School assemblies, plays and operettas can be conducted without interference from sound reverberations, thus making the programs twice as enjoyable.

Acousti-Celotex, type BB, has a sound-absorbing efficiency of 70%—the highest of any material on the market. Small openings, drilled *deep* into the tiles, act as minute tubes in carrying sounds to the noise-absorbing fibres *inside*.

Because of these deep openings, paint cannot interfere with the sound-absorbing efficiency of Acousti-Celotex. So you can have the tiles decorated in beautiful colors and designs. And since the tiles come in finished, complete units, they are easily installed in any building, new or old.

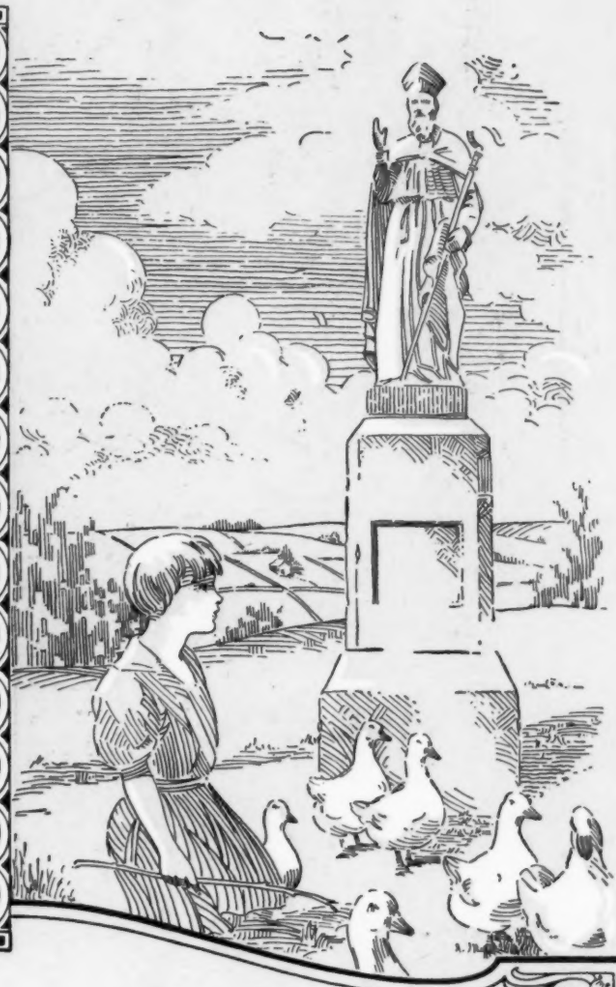
The Celotex Company will be glad to tell you more about the color effects you can obtain with Pre-decorated Acousti-Celotex. And you will be pleasantly surprised at the cost.

THE CELOTEX COMPANY
CHICAGO, ILLINOIS
Mills: New Orleans, Louisiana
Branch Sales Offices in many principal cities
(See telephone books for addresses)

ACOUSTI·CELOTEX

FOR LESS NOISE—BETTER HEARING

Dried Fruits



Celebrated throughout the whole world

THE popularity of dried fruits is not confined to any single region. Everywhere evaporation is known as a convenient, sanitary, and sure way to preserve the nutriments of fruits. The flavor, however, depends upon the fruit selected, and the care used in preparation.

The Edelweiss label is your protection. Sexton's dried fruits are always the new season's pack. You can depend on securing in them the original flavor, and the full food value, of the fresh fruit. Packed in convenient containers—the most economical size for you to use. Beautiful and delicious fruit, easy to prepare, easy to serve, and always satisfactory.

JOHN SEXTON & CO.

MANUFACTURING
WHOLESALE
GROCERS

AMERICA'S LARGEST
DISTRIBUTORS *of*
No. 10 CANNED FOODS

CHICAGO
EST. 1883

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Scrub Soaps *for every type of floor---*

Linoleum, cork-carpet, cork-veneer, mastic magnesite, rubber, painted, tile, marble, terazza, flint-tile or mosaic.

Rex Potash
Liquid Scrub Compound

Rex Pine
Liquid Scrub Compound

Lino-San
Liquid Linseed Soap for Soft Texture and Painted Surfaces

EVERY cleanser we offer is made to serve a specific need. It is not sufficient that a product clean a floor thoroughly and rapidly—it's of equal importance, if not more, that the article used in this cleaning shall have no injurious affect whatsoever on the floor itself. Many floors have been permanently ruined by the use of strong acid or alkaline compounds or cleansers of the abrasive type. Many manufacturers of linoleum and other types of floor coverings have heartily endorsed Huntington Cleansers and Huntington Service in helping users find the right cleanser for each type of floor.

Our Floor Department is at your service. Our chemists, who have made a long study of the chemical composition of various types of flooring will recommend the right compound to provide the greatest protection for your investment in floors.

FROM HUNTINGTON LABORATORIES

The Huntington Laboratories Inc.
Huntington-Indiana

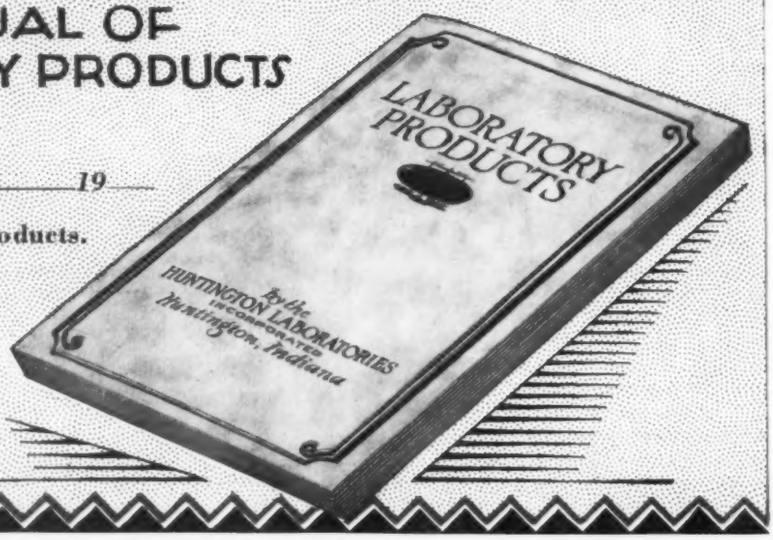
get THIS MANUAL OF SANITARY PRODUCTS

The Huntington Laboratories, Inc.
Huntington, Indiana _____ *19*___

Send us your Catalog of Laboratory Products. We are interested especially in cleansers for_____ **floors.**

*Name*_____

*Address*_____



Headquarters for Doors for Schools

IN EVERY Flush Door made by Roddis there are five solid layers of wood—the built-up softwood core, two layers of cross-band veneer and two layers of surface veneer. Such construction has proved, by years of performance, to possess maximum sound-proofing qualities.

Roddis is the world's largest producer of French and Flush Doors. Every door made by Roddis carries an unconditional guarantee against warping, swelling, peeling and shrinking.

So carefully are the woods selected in Roddis forests, for Roddis Doors, that two years elapse from the cutting of the timber to the completed door.

When you specify Roddis Doors, you are assured of the utmost in value. You enjoy the added advantage of the superior fire-resistive and sound-proof qualities of doors by Roddis.

Any finish may be had—any size or shape of opening—any arrangement of inlaid numbers or letters. Gladly will a Roddis representative quote on your requirements.

RODDIS LUMBER AND VENEER COMPANY
Marshfield, Wisconsin

Branches in all Principal Cities

RODDIS DOORS

Made by the World's Largest Producer of

FLUSH···AND···FRENCH···DOORS

Style 209. For women and men

Caps and Gowns

for

Collegiate Academic and Vested Choir use

Standard and Official

WHY PAY RENTALS continually when any school may obtain their own gowns at a moderate cost and upon liberal terms. A safe investment which shows unusual returns. Let us have the privilege of giving you full information thru our new catalog.

We have made for many years a complete line of women's Gymnasium and Athletic clothing.

Catalog mailed upon request

ALDRICH & ALDRICH

Factories
Chicago, Ill.
Sidney, Ohio

Est. 1912

Office
1859 Oakley Ave.
Chicago

Knicker and waist

With the Publisher

ONCE MORE IT WAS PROVED that conventions are of great benefit to those who attend them. Not only the "set papers" and the discussions that follow them, the symposiums and the trend of thought that prompt them and are stimulated by them, but the informal discussions heard around the meeting halls and the little intimate contacts that are made, all merge together to give to such events their greatest value.

Convention halls should be the market places for the exchange of thought and the recent meetings in Boston of the Department of Superintendence and allied associations emphasized again that those who take back the most from conventions are those who bring the most to them. The meeting of the eastern and western superintendents with those from the north and the south broadens the aspect of all, because what is fundamentally true in Portland, Maine, is equally as true in Portland, Oregon.

What great improvements have been made in commercial exhibits that are always a part of the well-regulated conventions? It was not many years back when the exhibitor felt that he must stand out in the aisle much like the second hand "clothes-man" and with almost brute force drag the delegate in to view the goods displayed. To-day the exhibitor does not expect to sell great bills of goods, rather he expects to—and in fact does—build much good will at these meetings, both by the type of exhibit that he arranges and by his method of meeting those attending the exhibits. The trend is toward more dignity and more value, less "high pressure" methods and less blatancy. In other words the manufacturer now co-operates with the consumer and he tries both in his exhibits and his advertising to make his contribution to the betterment of schools of as much value as possible.

It is good business and it is sound merchandising and in the long run it is more economical. No less a commercial genius than Marshall Field said many years ago, "He who lies to his customer is a fool," and he did not mean by the spoken word only, but by implication, by short measure, by unjustified claims, and by any action that would change the customer from a friend to an enemy. *Caveat Emptor* had died unhonored and unsung.

* * *

Magazine making does not differ greatly from any other work, indeed it is amazingly simple if the rules of the game are closely followed. The first and most important consideration is the reader. He must be many and he must be pleased and he must subscribe solely because he wants the magazine and knows that in each issue he will find discussed those things that are of prime importance to him.

Upon the contents of the magazine will depend the number of readers. Upon the number and type of readers will depend the volume of advertising as well as the kind of materials that are to be advertised. Obviously, the manufacturer who wishes to talk each month to the reader must have something of interest to talk about or his money has been wasted and in these days of keen competition rather close analyses of the field to be covered are made before advertising is placed. Upon the volume of advertising will depend to a great extent the enlargement and scope of any magazine, but it is not sufficient for a technical or professional magazine that advertising be mere advertising.

We, in the field of education, are fortunate in the advertisers with whom we deal. They realize that as a class the school man is superior in his reading habits, that he is ever alert to sound ideas, and that he will reject *in toto* superficiality. Our advertisers know that they must keep the advertising section up to the standard set by the editorial contents and as the readers have already found out, most of them are doing it admirably.

The NATION'S SCHOOLS.

Kewaunee's Famous Black Acid-Proof Tops for School Laboratory Desks

We manufacture Laboratory Desk Tops of all kinds for all purposes—wood, volcanic lava, and stone—each the best for certain purposes.

For most School Laboratories, the best Top made is Kewaunee's Famous Birch Top with its Black Acid-Resisting Finish.

Throughout a generation Kewaunee Tops have become famous for service. These tops are manufactured of carefully selected Birch, air-dried for two years, then kiln-dried and properly tempered. When finished with the successful Kewaunee carbonized black acid-resisting surface, the Kewaunee Desk affords a top that is supreme in "life" and "service" for every Laboratory purpose.

Over 100,000 in Use

These Tops—over 100,000 of them—are used in by far the greater number of the better Laboratories of the U. S.—in the most important educational institutions of the country—ranging from the greatest universities to the village high school.

Our Engineering Department at Your Service

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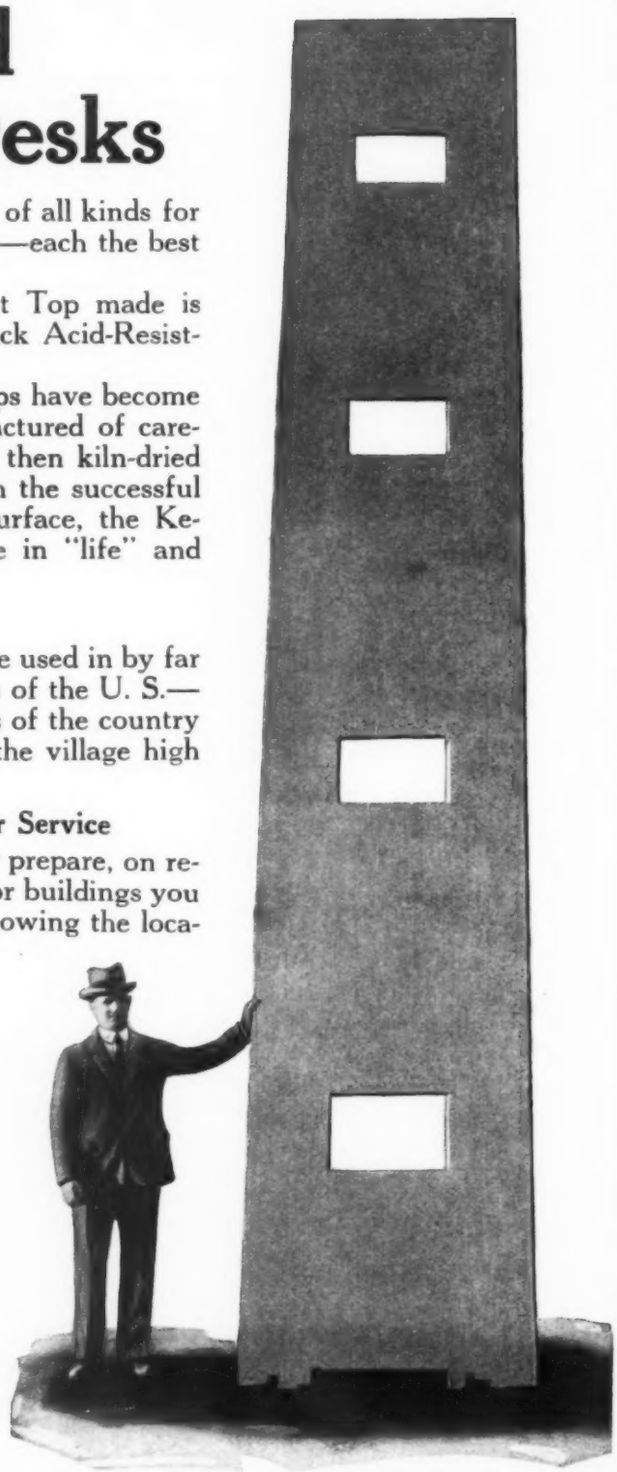

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State Controls of Local Education

Showing the present status of state controls of local education and indicating the degree of efficiency to which they have operated as measured by educational results

By JOHN GUY FOWLKES, Professor of Education, University of Wisconsin

THE Constitution of the United States contains no specific reference to public education. Consequently, since all matters not enumerated in the Constitution are functions of the states, public education has been, and in theory is, the obligation of the state.

As is true concerning many things pertaining to education, Massachusetts early recognized the need for public education and enacted measures to provide for the training of the future citizens of the commonwealth. In laws passed in 1642 and 1647, Massachusetts indicated a minimum educational program for all local communities to follow. Due to inequalities among the various local communities in respect to their ability to finance public education, it early became evident that this minimum educational program as established by Massachusetts would prove an operating maximum for some localities. In other centers the minimum served only as a point of departure.

Use Massachusetts as Pattern

Whether by definite attempt to pattern their provisions after those of Massachusetts, or a result of chance, the efforts of other states to fix state controls of local education have been very similar to those of Massachusetts. In spite of these movements to control education, when the results of this effort are scrutinized, one grows quite suspicious of the soundness of it. Modern life in this country is centered around the home and the local community. This local community may be a village, town, city, or county, but is still the local community. Consequently, the administration of public education is to a large measure a problem of local school administration.

The General Degree of Efficiency

In the following discussion, it is the purpose to show the present status of state controls of local education and to indicate the general degree of efficiency to which they have operated as measured by educational results. Lack of space will not allow the presentation of a detailed program even if such were possible. However, certain comments will be made on the basic inferences involved in the various controls, and it is hoped that the discussion will in some small way direct the discriminating attention of more administrative officers to the control of local education.

As has been previously indicated, the first attempt by the state to control local education was reflected in the establishment of a minimum educational program. This was followed by legislation that attempted to take cognizance of the marked differences in economic competence that are found among the various local communities of any state by rewarding effort or equalizing educational opportunity. Along with these two

types of legislation, came statutory action governing the organization and administration of individual schools, the teaching staff, school buildings, and school equipment, and some very definite, as well as general, specifications affecting the school curricula. Some of these stipulations by the state are permissive and while others are obligatory.

Divisions of Discussion

In keeping with the problems of local school administration, the existing controls of local education by the state will be discussed around the following headings:

I. Financial Controls
   A. State Support of Local Education
   B. State Control of School Bonds
II. State Controls of the Organization and Administration of Local Education
   A. Authorization of School
   B. Powers and Duties of Administrative Boards and Officers
   C. School Census
   D. Compulsory Attendance Laws
III. Teaching Staff Controls
   A. Teacher Certification Laws
   B. Teacher Tenure Laws
   C. Teacher Retirement Laws
IV. State Control of Local School Curricula
   A. Legislative Prescriptions
   B. Court Decisions

It would be supposed that state control of public education would be evidenced first by the generous support of local education by the state. However, striking evidence of the relatively small part the state plays in the support of local education is presented in Table I, Table II, and Table III.

It will be seen from the data presented here that not only has the state not supported local education to any great extent, but that state support has steadily decreased during the past decade. Attention is called to the fact that as the percentage of local revenue derived from the state has decreased the burden imposed upon the local general property tax has increased. In light of the fact that the value of general property is a very poor measure of the ability of a community to finance public education, it is evident that the failure of the states to assume their obligations in the support of public education is resulting in the perpetuation of fallacious methods of financing public education within local communities. Such a procedure increases the adjustments that must be made in the near future and reflects a short-sighted policy.

The inadequacy of the state's contribution to the support of local education may be accounted for in two ways: First, state support of public education at present consists largely of the revenue from permanent school funds and appropriations, rather than taxes; and second, many state appropriations for local education increase, rather than decrease, the cost of public education to the local community.

Most Permanent Funds Are Inadequate

The utter inadequacy of permanent school funds in the United States is evident when it is realized that although all states have at least one permanent school fund,[1] in eleven of them the fund is non-productive,[2] and in twenty-five other states less than eight per cent[3] of state school revenue comes from permanent school funds. In other

[1] "State Policies in Public School Finance." Fletcher Harper Swift. Bulletin, 1922, No. 6. Dept. of Interior, Bureau of Education, p. 26.
[2] Ibid, p. 31, and 52.
[3] No data from four states, hence it is thirty-six of forty-five units. (Counting the District of Columbia as a state.)

TABLE I—LOCAL SOURCES OF SCHOOL REVENUE IN THE UNITED STATES[1]

	Amounts		
	1910	1915	1920
Total	$434,106,858	$580,677,483	$987,966,584
State Subvention	82,591,812	99,646,222	154,770,207
General Property Tax	309,712,175	436,061,114	751,305,915
Miscellaneous Taxes[2]	9,367,689	9,145,984	17,747,435
Miscellaneous Revenue[3]	32,435,182	35,824,163	64,143,127
	Percentages		
	1910	1915	1920
Total	100	100	100
State Subvention	19.0	17.2	15.7
General Property Tax	71.3	75.1	76.0
Miscellaneous Taxes[2]	2.2	1.5	1.8
Miscellaneous Revenue[3]	7.5	6.2	6.5

1 "Financial Statistics of Public Education in the United States 1910-1920." Table 40, p. 57. The Macmillan Company, 1924.
2 Such as poll taxes, dog taxes.
3 Fees, fines, forfeits, escheats, etc.

TABLE II—AMOUNT OF LOCAL TAXES AND PROPORTION OF ALL ELEMENTARY AND SECONDARY-SCHOOL REVENUES FROM LOCAL SCHOOL TAXES[1]

	Local Property Tax	*Percentage of Elementary and Secondary-School Revenue From Local Property Tax*
1890[2]	$ 97,137,212	67.9
1900[2]	150,053,906	68.9
1910[2]	312,221,582	72.1
1920[2]	758,896,451	78.2
1910[3]	309,712,175	71.3
1920[3]	751,305,915	76.0

[1] "Financial Statistics of Public Education in the United States 1910-1920." Table 41, p. 58. The Macmillan Company, 1924.

[2] These figures are from the annual reports of the United States Commissioner of Education, and represent all local taxes collected for the use of elementary and secondary schools. The percentage is the proportion of all revenues for elementary and secondary schools obtained from the local taxes.

[3] These figures are local property taxes for educational purposes.

The difference between this figure for 1910 and the figure from the Report of the United States Commissioner of Education, for the same year is accounted for by the fact that the latter includes some local taxes other than the property tax, and that the educational functions included are slightly different in the two cases.

words, about seventy-five per cent of the states derive less than eight per cent of the state school revenue from permanent school funds.

Educational appropriations to local communities are of two types—general and special.[1] General appropriations usually supplement teachers' salaries and other general school costs. They are of real help. Special appropriations are made to subsidize some special activity, such as commercial work and home economics. Unfortunately, these special appropriations often encourage the inclusion of certain activities in the curriculum whose relative values for a particular community are not very high. For example, rather complete courses in commercial education are included in small rural high schools when no work in agriculture is offered. Also, as has been pointed out, it often occurs that such subsidies increase, rather than decrease, the educational burden of a local community by necessitating the enlargement of building facilities and increasing the teaching staff.

Problem of State Participation

From the data presented above, three factors are indicated: The part of the state in financing public education should be recognized as one of participation, rather than complete support;[2] the state problem of participation in school support should be accepted as one of equalizing educational opportunity; and, taxes, with special reference to income and inheritance taxes, should be utilized as sources of school revenue from the state.

The major provisions controlling the issuance of bonds for school purposes are presented in Table IV.

Limit Purpose of School Bond Issuance

It will be noticed that these limitations are centered around the purposes for which school bonds may be issued, the maximum legal debt limit, the maximum rate of interest that may be paid on school bonds, and the maximum term of years for which school bonds may be issued.

Attention is called to the fact that all but one state have passed definite provisions concerning the purposes for which school bonds may be issued. In keeping with sound financial policies, thirty-two of the states prohibit the issuance of school bonds for anything other than capital outlay purposes. It is unfortunate that all states do not have such a statute. Bonds should be issued only when some program other than regular running expenses is involved. Current costs should always be met from current revenue, and any policy to the contrary is extremely unwise. It is hoped that all states will soon take steps preventing the issuance of bonds for any purposes other than those of capital outlay.

Thirty-nine states have regulations governing the maximum bonded debt that may be assumed for school purposes. In thirty-four of these states the limit is some fixed per cent of the total assessed valuation of property within the taxing unit in which a school is located, ranging from two to thirty per cent. In some of the states that have such a limitation different limits apply to different kinds of taxing units; namely, cities, villages, and special school districts. Unfortunately, there is little, if any, sound basis for assessing property in most of the states, and in most instances no effort is made to assess at full valua-

TABLE III—MEDIAN PERCENTAGE OF LOCAL EDUCATIONAL REVENUE RECEIVED FROM STATE SUBVENTIONS IN DIFFERENT GEOGRAPHICAL DIVISIONS[1]

	Total	*East*	*South*	*Middle West*	*West*
1910	17.1	14.3	34.5	14.9	20.4
1915	19.8	11.6	32.4	12.9	22.1
1920	16.5	12.1	28.7	9.8	17.4

[1] "Financial Statistics of Public Education in the United States 1910-1920." Table 41, p. 58. The Macmillan Company, 1924.

[1] "State Policies in Public School Finance." Fletcher Harper Swift. Bulletin, 1922, No. 6. Dept. of Interior, Bureau of Education, p. 34.

[2] For an exhaustive treatment of this point of view, see Mort, Paul R., "State Support for Public Schools," Bureau of Publications, Teachers College, 1926.

tion, nor to know the relation between assessed value and true or sales value.

Reliable and uniform criteria for determining and declaring property valuations are badly needed throughout the country. Educational administrators would do well to promote such a project which would result in marked improvement in the financial support of public education. In two of the states the maximum school debt allowed is fixed by the authority within the taxing unit involved. This is a very loose provision and should be abandoned immediately. North Carolina, New Hampshire, and Vermont have special provisions which do not merit detailed treatment here. Suffice it to say that these particular statutes have not proved of any particular value, and hence should not be copied by states wishing to improve conditions.

TABLE IV—LEGAL LIMITATIONS AFFECTING SCHOOL BONDS[1]

I. Purposes for which school bonds may be sold.[2]	Number of states having such laws
A. Any school purpose....	15
B. Sites, buildings, equipment	32
Total	47
II. Maximum legal school debt	
A. Fixed per cent of assessed valuation	
1. 2 per cent.....	1
2. 2½ per cent....	1
3. 3 per cent.....	2
4. 4 per cent.....	2
5. 5 per cent.....	14
6. 6 per cent.....	5
7. 7 per cent.....	2
8. 8 per cent.....	1
9. 10 per cent.....	2
10. 15 per cent.....	2
11. 18 per cent.....	1
12. 30 per cent.....	1
B. Set by district authority	2
C. Special provisions	3
Total	39
III. Maximum legal interest rate	
A. Some fixed per cent	
1. 5 per cent.....	5
2. 6 per cent.....	16
3. 7 per cent.....	4
4. 6-8 per cent....	1
B. Legal rate within state	1
C. Varies with districts..	2
Total	29
IV. Maximum term of years for which school bonds may be issued[2]	
A. Fixed number of years	
1. 15 years	1
2. 20 years	8
3. 25 years	4
4. 30 years	2
5. 40 years	1
B. Varies with districts...	4
C. Varies with purpose of issue	3
Total	23

[1] School bonds means all bonds issued for school purposes.
[2] Compiled from "School Bonds," John Guy Fowlkes, Bruce Publishing Company, 1924.

All states have passed legislation concerning the organization and general administration of local schools. In some instances, differentiation has been made between urban and rural schools, but in regard to many factors there is a general statute governing all school districts. No attempt will be made to present data pertaining to all the items of general administrative character on which legislation has been passed, nor to submit data on all the elements that will be mentioned. However, the following treatment is indicative of the type of legislation in operation affecting the general administration of local schools.

Wisconsin School Code Excerpts

The following excerpts from the State School Code of Wisconsin indicate the type of legislation in effect concerning the organization and administration of local schools. Some states have better provisions than those shown here, and others can offer nothing better. However, they serve as examples.

Definitions and Interpretations[1]

Board means school district board or other body having charge of the schools of any one district.

Joint school district means a school district whose territory is not wholly within one municipality.

Municipality means or includes town, city, and village.

Parents include guardians and other persons who occupy the place of parents.

The distance between a pupil's home and school or between two schools shall be measured from building to building along the usually traveled route.

School Districts[2]

The territorial unit for school work is the school district. School districts are classified as common school districts and high-school districts and city school districts.

[1] Wisconsin Statutes, 1927. Section 40.01.
[2] Ibid, Section 40.02.

Conduct of Common Schools[1]

The board may make rules for the organization, graduation, and government of schools, such rules to take effect when signed by a majority of the board and filed with the secretary; may suspend any pupil for non-compliance with such rules or those of the teacher or superintendent made with its consent; may expel any pupil whenever it shall find him guilty of persistent refusal or neglect to obey the rules and become satisfied that the interests demand his expulsion.

Common School District Meetings[2]

The annual meeting in all common school districts shall be on the second Monday of July at seven o'clock in the afternoon, but a different hour may be fixed by any annual meeting for the next annual meeting.

Powers of the Annual Meeting[3]

1. To designate sites for district school houses, also teacherages.
2. Authorize the board to furnish free textbooks for use in school.
3. To determine the length of time the school shall be taught.

City School Superintendent[4]

The city superintendent of schools shall examine and license teachers, have general supervision of the professional work of the schools and the promotion of pupils.

He shall make written recommendations to the school board relative to the teachers, course of study, discipline, and such other matters as he may deem for the best interest of the schools, and shall perform such other duties as the board shall require.

He shall not be a member of the school board. He shall not engage in any pursuit which shall interfere with the proper discharge of his duties, but he is eligible to act as principal and teacher in any school under his supervision, and he shall possess the legal qualifications required of the high-school principalship.

He shall attend annually one convention called by the state superintendent for the purpose of consultation on matters pertaining to the supervision and management of city schools. He shall be reimbursed his actual and necessary traveling expenses upon presentation of a certificate of attendance to his board.

City School Board, Duties and Powers[1]

1. To employ a city superintendent and assistant but not for longer than a period of three years.
2. To estimate the expenses of the city school system and prepare a budget which shall be submitted to the common council of the city for its approval.

[1] Wisconsin Statutes, 1927, Section 40.21.
[2] Ibid, Section 40.3.
[3] Ibid, Section 40.04.
[4] Ibid, Section 40.58.

[1] Wisconsin Statutes, 1927, Section 40.53.

TABLE V[1]—LOWER AGE LIMITS AND THE NUMBER OF STATES[2] SPECIFYING EACH IN 1922 AND 1925

Date	*6 years*	*7 years*	*8 years*	*9 years*	*Average*
1922	1	25	22	1	7.47 years
1925	2	27	19	1	7.38 years

TABLE VI[1]—UPPER AGE LIMITS AND THE NUMBER OF STATES[2] SPECIFYING EACH IN 1922 AND 1925

Date	*14 years*	*15 years*	*16 years*	*17 years*	*18 years*	*Average*
1922	10	2	27	5	5	15.86 years
1925	6	1	32	5	5	16.04 years

TABLE VII[1]—COMPULSORY ATTENDANCE TERMS AND THE NUMBER OF STATES[2] REQUIRING EACH IN 1922 AND 1925

Date	*3 mos.*	*4 mos.*	*5 mos.*	*6 mos.*	*7 mos.*	*7.5 mos.*	*8 mos.*	*8.5 mos.*	*9 mos.*	*Average term*
1922	5	3	6	10	5	2	10	1	7	6.50 mos.
1923-25	4	3	6	10	5	1	12	1	7	6.78 mos.

[1] Taken from the unpublished Doctor's thesis entitled "Compulsory Attendance Laws in the United States," by Amos Benjamin Carlile, University of Wisconsin, p. 91. (Tables I and II); p. 119. (Table III).
[2] Including the District of Columbia.

Tuition[1]

The board of education of any city may be empowered to charge non-resident pupils tuition for attending high school. Such tuition shall be determined by dividing the total salaries of the teachers and principals and the high-school costs of textbooks, supplies used in high-school instruction, manual training, domestic science, by the total enrollment for the year, but not exceed the sum of three dollars per pupil, per week.

It should be observed that some of the provisions presented are excellent, while others are either superficial and inadequate or are not for the best interests of public education. For example, it is exceedingly unfortunate that the duties and powers of the city boards of education should be defined so loosely. The revision and codification of the school laws pertaining to the administrative boards and officers of local education are badly needed in most states.

School Population Fixes Educational Load

The most fundamental fact necessary in determining the educational load of a community or state is the school population of that community or state. All states have defined the school census, but unfortunately the definitions are not uniform. For example, the school census in Virginia is from seven to nineteen, while in Wisconsin, it is from five to twenty. Such disparity in the definition of the school census is deplorable and should be corrected immediately. The best limits are those recommended by the United States Bureau of Education; namely, from five to seventeen inclusive. These are the limits most commonly accepted and should be adopted where they are not already in effect.

After the school population of a state has been established, one of the most important elements in public education is the compulsory attendance requirements. Tables V, VI, and VII show the limits of the compulsory attendance laws throughout the country for 1922 and 1925.

Attention is called to the fact that the lower limits of the compulsory attendance laws show a slight downward trend, while the upper limits show a slight increase. The question of just what are the soundest limits for the compulsory attendance period depends on the education philosophy of a given state. Certainly the maximum amount of training that can be absorbed should be offered. However, there is a point beyond which formal education is of little, if any, value to many people. Certainly the compulsory attendance period is one of the most important elements in the formulation of a sound program of public education and should receive the most careful consideration.

Three of the most powerful determiners in the progress of the profession of teaching are teacher certification laws, teacher tenure provisions, and teacher retirement laws. The following discussion will show typical legislative provisions relating to these three basic factors.

Special certification laws for high-school teachers have been passed in twenty-seven states. The machinery for certification falls roughly into two kinds, the one being highly centralized as in Ohio, and the other decidedly decentralized, as in Massachusetts. In between these two plans there is a modified form of both plans, such as in Illinois. Practically all the existing high-school certification laws include regulations concerning experience and scholarship necessary for gaining the certificate. Most of the states have two or three types of high-school certificate.

The first general type requires four years of college training, including certain specified work in education, plus a certain amount of successful teaching experience, entitles the holder to teach in any high school within the state, and is in effect indefinitely or for life. The second general type is granted automatically upon college graduation, including certain professional work, entitles the holder to teach in any high school, and is valid for relatively a short term of years ranging from one to five.

Ohio Qualification Provisions

The third general type of certificate may be gained by graduation from a high school, plus one or two years of college work, including certain professional work, in addition to an examination. This certificate usually limits the type of school in which its holder may teach and is valid for a shorter term than the second general type, usually from one to three years. This third type may or may not be renewed, depending upon special state provisions. The accompanying certification provisions of Ohio are presented as an excellent basis of departure for analyzing existing certification laws in a given state.

Certification requirements for elementary-school teachers are in no way as rigid as for high school. At present, in the city schools at least, normal-school graduation is required, but this is effected by local administration rather than by state statutes. However, with the growing adoption of the single salary schedule, the more progressive communities are demanding four years of college training for elementary as well as secondary-school teachers. As this practice in-

[1] Wisconsin Statutes, 1927, Section 40.53.5.

creases, the standards for elementary-school teaching will equal those for high-school teaching. Only by such action can elementary teaching be given the professional status it deserves.

It is rather generally accepted that teachers must be assured of more stable tenure if the educator is to become a really professional worker. In keeping with this point of view, many individual cities appoint teachers for a probationary period of from one to three years, after which the classroom workers are placed on permanent or indefinite tenure. In other communities, it is assumed that appointment is automatic after a teacher has been in a system for a certain period of time, usually one or two years, unless a notice of dismissal is received by the teacher sometime during the second semester of the current year, usually in March or June.

CERTIFICATION PROVISIONS OF THE STATE OF OHIO

Name of Certificate	*Issued by*	*Valid in*		*Duration*	*Scholarship Requirements*
		Territory	*Schools*		
State high-school certificate	State Board of Examiners	State	High schools	Life	a. Issued to holders of degrees from approved colleges who have completed a fifty months' period of successful teaching experience. b. To holders of state provisional high-school certificates who have taught twenty-four months since receiving same. c. Examination in geometry, high-school English, Latin, or other foreign languages, civic government, algebra, physics, psychology, history of education, science of education, and any three of the following: Latin or other foreign language, chemistry, botany, zoology, astronomy, trigonometry, economics, logic, and any one or two of the usual divisions of history, manual training, and home economics. A minimum grade of eighty per cent is required. Prerequisite for entrance, two years of college or normal-school work, one-fourth of which must be professional.
Provisional high-school certificate	State superintendent	State	High schools	Four years	Issued to graduates from any normal school, teachers college, college, or university, who have completed a full four-year academic and professional course in such institution and who are also graduates of a four-year high school.
High-school certificate	County or city board of examiners	County or city	High schools	One or three years, depending on grades and experience as determined by rules of local boards of examiners.	Examination in English, principles of teaching, and five elective branches. Examination includes practical test in teaching. A prerequisite for entrance to this examination is thirty-six weeks' professional training and four-year high-school course.

Regardless of these various individual attempts to increase the certainty of office in the teaching profession, there is little legal basis for such action. Only five states, California, Massachusetts, Montana, New Jersey, and Oregon, have passed permanent tenure laws for teachers. If permanent tenure for teachers is desirable, there should be concerted action by professional educators toward the enactment of proper legislation to this effect.

State Role of Teacher Retirement

The twenty-one states, in addition to the District of Columbia, having state teacher retirement laws are as follows:[1]

Arizona	Nevada
California	New Jersey
Connecticut	New York
Illinois	North Dakota
Indiana	Ohio
Maine	Pennsylvania
Maryland	Rhode Island
Massachusetts	Vermont
Michigan	Virginia
Minnesota	Wisconsin
Montana	

In addition to these state-wide teacher retirement laws, the following cities and counties have local teacher retirement systems independent of the state system:[1]

San Francisco, Calif.	Minneapolis, Minn.
New Haven, Conn.	Duluth, Minn.
Chicago, Ill.	St. Paul, Minn.
Peoria, Ill.	New York City, N. Y.
Terre Haute, Ind.	Bristol, R. I.
Indianapolis, Ind.	Newport, R. I.
Allegany County, Md.	Providence, R. I.
Baltimore County, Md.	Milwaukee, Wis.
Boston, Mass.	

Also in addition to these state-wide systems, the following states have special laws providing for retirement systems in some cities:[1]

Colorado	Nebraska
Iowa	Oregon
Kansas	Utah
Kentucky	Washington
Louisiana	West Virginia
Michigan	

Several of the state-wide teacher retirement laws are excellent and might well be used as a working basis for the formulation of a new law. According to the report of the National Education Association, the Vermont law is one of the best. Here, again, is another matter concerning which legislation is badly needed in more than half of the states. It is hoped that active steps will be taken toward the passage of such measures at an early date.

The control of local school curricula by the state lies in two types of measures: First, curricular prescriptions in state legislation; and, second, court decisions affecting local school curricula. Flanders, in a study entitled "Legislative Control of the Elementary School," has presented state control of local elementary education insofar as legislative prescriptions are concerned. No similar study covering secondary education is known to the writer. Hamilton, in an investigation entitled "The Courts and the Curriculum," has shown the influences of the courts on local school curricula.

Table VIII shows the curricular prescriptions for local elementary schools in 1903, 1913, and 1923.

Discussion by Flanders

In discussing these data, Flanders makes the following comments:[1]

> "Each of the forty-eight states is aware of its authority to legislate regarding the content of the elementary curriculum. To some extent every one of the states is exercising this authority, and throughout the period covered by this study has exercised such authority. There is a wide variation in practice among the different states; some have enacted a long list of prescriptions, others very few; some have delegated large discretionary authority to the state board of education, others have left control of the schools and of the curriculum almost entirely to local boards; in some states the voters of a district may prescribe additional subjects to the curriculum; some states have been reluctant to delegate any authority. There is no state where some discretion as to the subjects to be taught is not left to educational authorities and in every state there is abundant freedom to select the subdivisions which shall be included in a given subject. There is no single subject which, by direct mandate, is uniformly required throughout the common schools of the country."

It seems to the author that detailed curricular prescriptions for local communities are extremely undesirable. One of the most salient features of the development of this country has been the right of free thought and speech. Minute curricular specifications for local schools will choke this national privilege.

The decisions of the courts relating to local

[1] Research Bulletin of the National Education Association, Vol. IV, No. 3; p. 122.

[1] Flanders, Jesse Knowlton, Legislative Control of the Elementary Curriculum, Bureau of Publications, Teachers College, 1925, p. 178.

school curricula were grouped by Hamilton[1] under the following headings:

A. Judicial Decisions Relating to the Scope of the Curriculum of the Public Common Schools
B. Judicial Decisions Relating to the Control of the Curriculum of the Public Schools by Legislative Action
C. Judicial Decisions Relating to the Control of the Curriculum of the Public Common Schools by Local Agencies
D. Judicial Decisions Relating to Religion and the Bible in the Public Schools
E. Judicial Decisions Relating to the Matter of Instructional Supplies in the Public Schools
F. Judicial Decisions Relating to the Adoption and Change of Textbooks in the Public Schools

Attention is called to the wide range of curricula factors affected by the rulings of the courts. Hamilton indicates the trend of court decisions affecting local school curricula as follows:[2]

"1. There has been a general trend of the decisions toward the more complete recognition of the power and duty of the state legislature and the local school corporations to provide a more extended public school organization and a more varied offering of particular secular subject matter in the public schools.

2. There has been a trend of the decisions toward the exclusion of all religious instruction as such, or religious influence whatsoever, from the public schools.

3. The trend of the decisions has been toward the recognition of the inherent right of the child to an education and a consequent trend toward the decrease of the parent's absolute control over his child's opportunity for an education.

4. The trend of the decisions has been toward favoring the public as against those persons who have been given special privileges in regard to furnishing instructional supplies to school corporations and to the public.

5. There has been a trend of the decisions toward upholding the power of the local school corporation to provide, upon its own initiative, instructional equipment for its schools.

6. There has lately been a suggestion of a trend toward greater participation of the federal courts in the adjudication of controversies involving the curriculum."

From the data and discussion that have just been presented, it seems apparent that state controls of local education have in most instances been nominal, rather than real. Certainly the part of the state in financing local education has been one of minor participation rather than support. The process by which local communities may assume indebtedness for school purposes has been acted upon by most of the state legislatures. However, some fundamental revision is necessary in a large number of our commonwealths on this matter. Both permissive and compulsory general legislation has been passed concerning the creation, administration, and operation of local schools. Likewise, laws concerning the certification, tenure, and retirement of the teaching staff have been passed throughout the country. However, in regard to tenure and retirement systems particularly, such statutes as exist are woefully inadequate, and the majority of states lack any provision at all. Similarly, it is time that special

TABLE VIII—GENERAL SUMMARY OF CURRICULAR PRESCRIPTIONS FOR THE PUBLIC ELEMENTARY SCHOOLS OF THE UNITED STATES 1903, 1913, 1923.[1]

Topic	*Number of Prescriptions*			*Increase*		
	1903	*1913*	*1923*	*1903 to 1913*	*1913 to 1923*	*1903 to 1923*
Nationalism	147	196	304	49	108	157
Health and "Prohibition"	102	131	171	29	40	69
Conservation of Life and Property	1	20	43	19	23	42
Practical and Cultural Subjects	24	44	59	20	15	35
Humaneness	12	28	36	16	8	24
Fundamental Subjects	197	216	216	19	...	19
Religious and Ethical Subjects	74	76	84	2	8	10
Miscellaneous Subjects	7	9	13	2	4	6
Total	564	720	926	156	206	362

[1] Flanders, Jesse Knowlton, Legislative Control of the Elementary Curriculum, Bureau of Publications, Teachers College, 1927, p. 175.

[1] Hamilton, Otto Templar, The Courts and the Curriculum, Bureau of Publications, Teachers College, 1927, Table of Contents.

[2] Ibid, p. 150.

certification laws were passed for elementary-school teachers and the certification of elementary-school teachers placed on a status comparable with that of secondary-school instructors.

In keeping with our national policy of individual rights, it seems that particular care should be exercised to avoid the mechanization of public education, either by legislative action or by interpretation of existing statutes. Only as competent administrators direct their attention to elements such as these will state school control be effective.

Alabama Community Entertains in School Auditorium

The consolidated schools of Montgomery County, Ala., have worked out and put into effect an unusually good program of school and community activities designed to make the most of the social and educational advantages of the school auditoriums. The aim has been to give every activity of the auditorium educational value. An account of this program is presented by Lillian Allen and Cora Pearson in *Rural School Leaflet No. 34*, Bureau of Education, as an example of what may be done to further community interests.

Auditorium in Each School Building

A spacious auditorium for a community gathering place, and for regular school use, was made a part of each new building when Montgomery County consolidated its schools six years ago. The first entertainment in one of the large consolidated schools was given without an audience, before the building was completed, by a party of tourists who had stopped to look at this new and unusual rural school. They took charge of stage and auditorium and amused themselves by requiring each person in the party to give a reading or musical number. With that informal gathering the school auditoriums of the county set out on the mission of common welfare for which they are purposed.

That mission is being carried out through many and varied forms of activities, all intended to create a feeling of oneness between school and community. Pupils and patrons alike use and enjoy the auditoriums. The farm interests are furthered by using the auditoriums as places where the farm and home demonstration agents show their educational films on dairying, poultrying, and other agricultural subjects to children and parents. The community fairs are held at the schools and the students put on original programs to entertain their parents and friends. At one of these fairs one school showed the evolution of education in Montgomery County.

Parent-teacher associations both use and improve the auditoriums by giving entertainments to raise funds for installing motion-picture machines. That having been done, regular Friday night picture shows are given. The athletic associations help to get money for needed athletic equipment by giving minstrel shows, box suppers, and community spelling bees. The monthly county teachers' meetings are held in the rural schools, and the children lighten the work of the gathering with a short program of songs and playlets.

Entertainments by the pupils, representing outgrowths of the regular classroom work, are frequently given. These include several plays a year, as a part of the training in dramatics; debates, as a part of the literary society activities; and piano recitals. The school and community orchestra of the rural schools gives a concert annually, and the regular high-school commencement exercises are held in the auditoriums. All those interested may be accommodated, since the seating capacities are adequate.

Schedule Outside Talent

Though the main purpose of the community program is to train folk in providing their own good times, the help and inspiration of outside talent are also used. Lectures, readings, and vocal and instrumental music—given by the best professionals and semiprofessionals from the city—are offered free, and help to bring the communities and the schools closer together. One of the most pleasant of these is the sacred-song service, a program carried out about Easter Sunday by members from the Sunday schools of the city of Montgomery.

The School and the Community

In theory the high school is a social institution which is established, maintained, and in a large measure controlled by a community for the education of its youth. It is open to all who have completed the work of the elementary school. It must, if its work is to be done effectively, be adapted to the needs of its pupils and the educational demands of the community. It is supported in major part by funds supplied by the community which it serves. It is, with the elementary school, the community's one great cooperative enterprise. If it succeeds, it must have the confidence and faith of those who support it.—*E. N. Ferriss, Bureau of Education Bulletin No. 10.*

Consolidated Schools Successfully Replace One-Room Type

By C. G. SARGENT, Professor of Rural and Vocational Education, Colorado Agricultural College

THE isolated one-room school has been a familiar sight on the plains for a half century or more. In the early "homestead" days many of these little schools were built of sod or adobe brick, but in more recent times most of them are of light frame construction. In most cases, this important rural institution and the people who so tenaciously cling to it have not yet fully awakened to the fact that times have changed and that we are now living in a new world as compared to a few decades ago.

In spite of itself the rural school has been carried along in the wake of twentieth century progress but has undergone very little change itself, less than any other rural institution, unless it be the rural church. It still remains the same ineffective institution it has been for many years, without a constructive program of its own.

Rural Schools Are Last to Respond

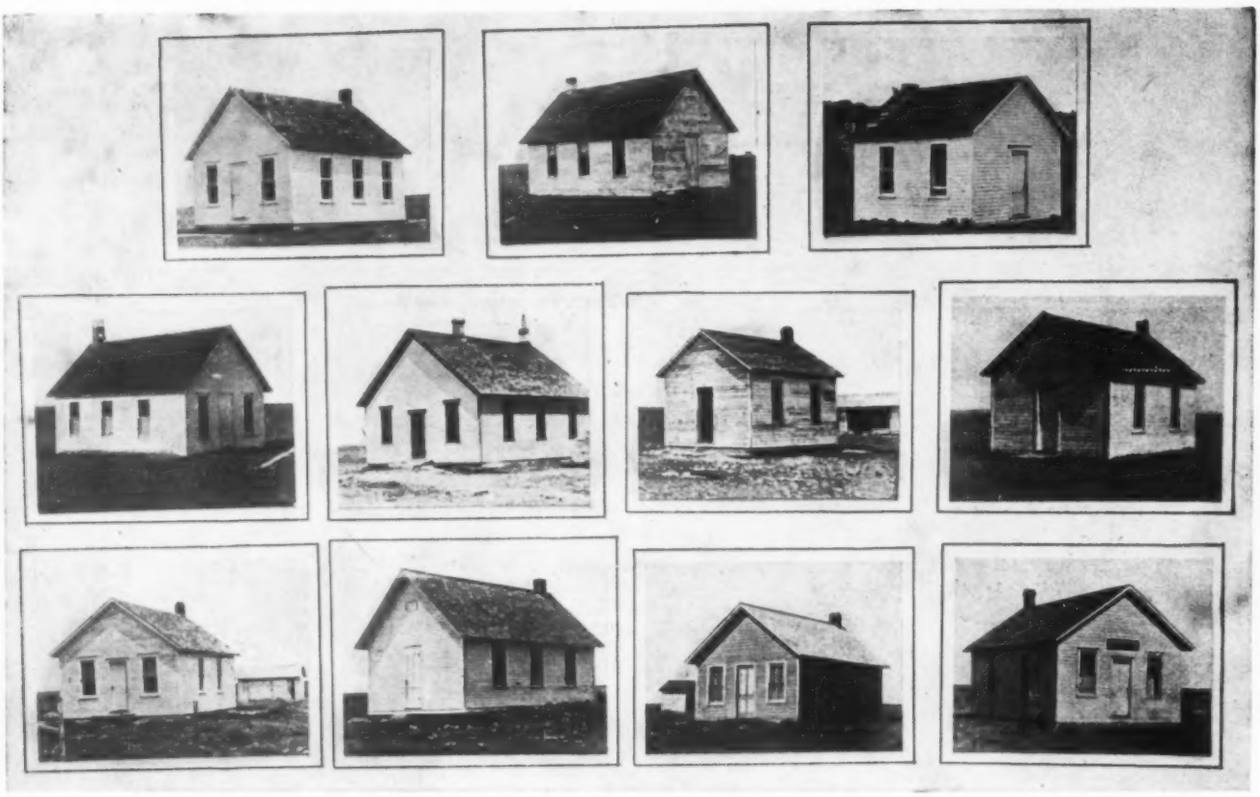
We are now living in a new age and many of the old familiar things have already passed away. Labor-saving devices in the home, farm machinery, means of transportation and communication have all been greatly improved. Methods of farming, the breeds of livestock, the crops grown, the style of farm homes, all reflect this upward evolution. The very face of the earth has been changed in appearance by our advancing civilization. In the midst of this great transformation the rural school has been the last to respond in an effort to keep step with its surroundings.

Sparse population, long distances, low valuations, apparent lack of funds, poor roads, and at times, adverse weather, once real obstacles, are still considered insurmountable barriers to good rural schools. This view seems to grow out of the philosophy that since rural schools have long been ineffective and inefficient they must always remain so. This continues to be true in spite of the fact that the great plains section to-day bears little resemblance to what it was in the days of the pioneer. This vast area, including large portions of a half-dozen states and stretching a thousand miles or more north and south, and from three to five hundred east and west, presents a greater degree of uniformity in population distribution, taxable wealth, farming, climatic, and road conditions than any other like area in the United States.

Testimonials of Progress

The old "Overland trail," whose devious course was once marked by the bleaching skeletons of horses, mules, and oxen that perished on the way, has now given way to the Lincoln Highway, the Yellowstone, the Atlantic and Pacific, the Custer, Santa Fe, and other equally well-known state and national highways, all bisected by hundreds of cross roads, that connect every town, village, and farm house with these transcontinental thoroughfares. All these main arteries of travel are carefully marked by state and national road signs to guide the ever increasing stream of tourists to and from the mountains or the Pacific coast. All are literally lined with garages and filling stations and strewn with discarded inner tubes and outer casings, while their graveled surface is soaked with oil dropped from thousands of passing motor cars, all of which are but the "trade marks" of a new age and testify to the progress we have made in transportation and most other things.

To-day thousands of farm homes, hundreds of towns and villages, and a few millions of people, enjoying many of the blessings of twentieth cen-



Eleven one-room school buildings abandoned in the New Raymer centralization.

tury civilization, live upon this same land that but a few decades ago was the undisputed hunting grounds for the Indians and the unfenced range of the buffalo. Railroads now reach every county-seat and all other population centers, while electric lights and paved streets adorn even the small village. Daily rural delivery of mail reaches most of the farm homes in this entire region, while the radio gives the farmer and his family everything that is "on the air."

Civilization has been hacking away at this old world ever since man was given dominion over it and commanded to subdue it. He seems to have taken this command quite seriously, and wherever he settles he begins whittling away on the landscape. Man changes his surroundings. He modifies his environment So, this great plains section is not what it was a few years ago. It seems that everything has changed, except the rural school. Some claim it has also changed, but for the worse. While there are a few good schools scattered over this territory, still we must admit that most of these schools are out of harmony with their surroundings.

In a region of such uniformity, if good schools are found in some neighborhoods, why not in others? Why not in all? Have all the favored neighborhoods improved their schools and must all of the others always remain as they now are? Or, after all, are good or poor schools altogether a matter of overcoming or failing to overcome natural difficulties? Or, has the vision, intelligence, and determination of the people a directing and controlling influence upon the kind of schools they have?

The opinion is here advanced that it is not so much a matter of overcoming the natural difficulties enumerated above, as it is of removing from people's minds imaginary ones and overcoming the inertia, prejudice, and the lack of vision of the people themselves.

Most country people have not yet discovered the magic power of co-operative effort in removing, or overcoming, what formerly seemed to be insurmountable obstacles. Most of them have not tried co-operation on a large scale in an effort to solve their common community problems. But some have, and by freely co-operating with their neighbors over a larger area and including more people have done easily what was really impossible of realization when the problem was attacked by a small group. In some places people have abandoned their old one-room schools, have formed a real community unit, have erected modern school buildings, and now maintain modern school systems that are a credit to any people under such circumstances. Many such examples can be found, named, located, and their schools studied and compared with other good schools. The methods employed in making these improve-

New Raymer Consolidated School, Northeast Weld County, Colo., which replaced those shown on opposite page.

ments are not a secret, but may be known, followed, or improved upon by other groups under similar conditions.

In an effort to show that good schools have been built in many parts of the plains area, and to reason from this that many more like them may be built in other places, a few examples will be given and described in some detail. For personal reasons all of these are taken from eastern Colorado. We are fully acquainted with all conditions leading up to and following the reorganization and can vouch for the truthfulness of the statements made. But these examples might have been taken from any of the other states involved.

Good Schools Replace Poor Ones

Colorado has fifteen plains counties east of the foothills in which farming is carried on with limited rainfall and without irrigation. Seventy-five good consolidated rural schools are now in operation in these counties. These people have built good schools to replace poor ones. We have actually witnessed this transformation in many of these communities and have even been present when the "growing pains" were most acute. It would seem that hundreds more like them could be built and that they would be successful.

A very brief description of four of these schools will be given and pictures will be used to reinforce and supplement the statements made.

I. The New Raymer Consolidated School.— This rural district is located seventy miles east of the Rocky Mountains in northwest Weld county. In 1913 when the people decided to improve their schools they had eleven one-room schools scattered over an area of four townships. The district was nine by eighteen miles and contained 144 sections of land. The people were just emerging from the "homestead" stage. Valuations were low, money scarce, distances great, roads poor, and living conditions hard. At that time there was not a consolidated or centralized school in all eastern Colorado to encourage these people to attempt by this method to get a better school. In this large district motor transportation was the only solution for their transportation problems, yet no school in the state had ever tried it out under our road and weather conditions.

It takes not only vision, but real courage to change abruptly from a system of eleven one-room schools to a centralized school of twelve grades at the time and under the conditions that surrounded these people. The pictures of the old and new schools indicate better than words the extent of the transformation wrought by the people under their own leadership when they knew that they would have to pay all of the bills by a fax on their own property.

A new school system, housed in one modern plant, with adequate equipment, a trained and

experienced rural leader as superintendent, nine other good teachers, a full nine-months' term instead of seven, an accredited four-year high school with an enriched curriculum, all combined into a single unit and used as a real community center, has replaced the collection of old schools.

A large unit, in spite of low valuations, provides an assessed valuation of $1,328,210.00 which made it possible to erect the central school and successfully operate it for the past fourteen years, when backed by the fine co-operation of a great majority of the patrons.

II. The Lone Star Consolidated School.—Seventy-five miles farther east, or 150 miles east of the mountains, in eastern Washington county, we find a good open country consolidated school, situated twenty-two miles from a railroad station. This neighborhood also had nothing but one-room schools before they consolidated several little districts into a larger and stronger unit, in 1919. This district has an area of eighty-two square miles, or nearly two and one-third townships and an assessed valuation of $908,640.00. The difficulties encountered at New Raymer were even multiplied here, yet the people voted to abandon the old system and establish the new. The scarcity of money for buildings is clearly indicated by the fact that they had to move in and remodel four of the abandoned schools to complete their central plant. Yet who would not highly commend them for their vision, courage, and resourcefulness in overcoming the difficulties that stood between them and a better school?

Excellent Record of Lone Star School

The new school employs a good superintendent, six other good teachers, enrolls 104 pupils in the first eight grades, thirty-five in the high school, has established a reputation for high standards of scholarship, takes part in athletics and other school contests with other good schools, and because of its excellent record for good work was made one of the eleven branches of the Washington County high-school system.

Here again the large unit provides the necessary funds, while the fine co-operation of all the people furnishes the leadership to make a good school possible.

III. The Burlington Consolidated School.—This school is located in eastern Kit Carson County. The district reaches the Colorado-Kansas state line, has an area of eighty square miles, and an assessed valuation of $4,000,000, made possible only by the consolidation of a half-dozen fragments of what is now a real community unit. This county was named for one of the best known Indian fighters, buffalo hunters, and Army scouts that ever roamed over these plains and whose name suggests the beginnings of civilization in this part of the United States.

The country schools and the old town school, all in poor repair, were abandoned and the fine new central school and a separate shop now make a good school possible to replace poor ones.

The first superintendent, whose able leadership helped to bring about the reorganization, remained eight years at the head of the new school, and his successor is still on the job. He is at the head of a school system of eighteen teachers, all housed in a modern building with standard equipment, and classrooms, auditorium, and gymnasium, and a school system which enrolls 304 children in the first eight grades, and has a high school of 153 students, which is fully accredited by the North Central Association of Colleges and Secondary Schools.

Increase in Investment Resulted

The extent of the reorganization is clearly indicated by a comparison of the value of the old schools when abandoned and the new school now. No one would have appraised them all at $4,000 for any purpose, while the new represents an investment of over $100,000.

Burlington is a county-seat town of 1,000 population and this is a fine example of where town and country people have co-operated in an effort to have a good school. The town has doubled its population since the new school was built.

The present superintendent makes the following comments on the school under date of December 6, 1927:

> "Our school census is 492 and our enrollment 457. The thirty-five children in our district who are not now enrolled are for the most part graduates of our high school.
>
> "Transportation has been very successful and we have had but two days in six years when our busses could not make their regular trips. We seldom have tardy busses, yet a few children ride twelve miles twice daily. We have football, basket ball, and track teams and all athletics have been successful.
>
> "We have a regular music teacher for the grades, our junior high school has a chorus of thirty voices which aids the churches with their music.
>
> "We have a school band, a class in dramatics, and one in journalism which publishes our school paper, 'Tumbleweeds,' twice each month.
>
> "We feel that we have fine school buildings and a good school system."

The regular academic standards of this school are fully vouched for by the fact that it is ac-

Sod school of one-room type which is abandoned.

credited as indicated above. It is also a fine community school, with special teachers for manual training, home economics, and vocational agriculture in an effort to give the boys and girls at least some training for work in the home and on the farm.

This reorganization took place in 1917 and the new school has already graduated 144 boys and girls from its high school, while the present senior class numbers thirty-three.

IV. The Yuma Consolidated School.—This is one of the most extensive school reorganizations of which we know in any part of the country that was brought about by local people. They first consolidated six rural districts with the town district, abandoned the six one-room schools and the old town school and created a community unit of eighty-two square miles. They first erected a nine-room building to replace the old schools. This was followed by a three-room building.

As soon as they began to appreciate the superior advantages of the new school they decided to persuade more outlying country districts to join with them in forming a union high school since there was no other high school within thirty miles of Yuma. They succeeded in getting twenty-one other country districts to join in this movement for a large, strong central high school, leaving these twenty-one one-room rural schools for the smaller children. This gave them a very large district for high-school purposes, with an assessed valuation of $6,482,426, and by this very extensive reorganization they have overcome the greatest obstacle to good schools; namely, lack of funds. When this was accomplished they erected the fine new high school and following this the home for the superintendent.

The four new buildings now in use are listed below in the order of their erection:

	No. rooms	*Cost*
1. Two-story grade building...	9	$ 25,000
2. One-story grade building...	3	15,000
3. High-school building	20	175,000
4. Superintendent's home	5	4,000
	37	$219,000

The new system is directed by an able superintendent, a high-school principal, two grade principals, and a staff of twenty-three teachers. Two hundred and ninety-nine children all of whom come from the consolidated unit of eighty-two

Burlington Consolidated School, eastern Kit Carson County, which replaces schools shown on this page.

A one-room type which has been replaced.

square miles, are enrolled in the eight grades, while 213 more are enrolled in the high school and come from this same territory and the twenty-one rural districts. The high-school enrollment is as follows:

Freshmen	69
Sophomores	52
Juniors	46
Seniors	41
Specials	5
Total	213

This, even more than the other three examples, is not only school reorganization of a high order, but it is real community building, welding together not only these unrelated school units, but at the same time uniting all of the people as an effective working body for the solution of all their common community problems.

Details in all four schools are available, are very interesting and most convincing, but cannot be given in this article for lack of space. These four examples are given in an effort to show that good schools have been built and are now in operation on the plains under conditions no more favorable than those found in hundreds of other places.

Now someone has discovered that we have neglected to say anything about the "enormous" cost of these schools. That information will now be supplied.

Country people have always had to pay the standard market price for groceries, clothing, furniture, farm implements, legal and medical services, automobiles, and scores of other things they use daily, but for generations past they have been buying a cheap brand of education for their children. That is, they have been made to believe it was cheap, because the total annual outlay to operate a one-room country school is not large, but such education is often found to be the most expensive kind when figured on the per capita basis, and when the educational achievement of the children is carefully weighed in making the computation. Country people can ask no special favors when buying the things just enumerated above, nor can they longer expect to give their children a good education at very much less cost than city people pay for the same thing. Education, like most other things, has come to be a standard product, and bargain counter sales always indicate an inferior article.

Public schools in Colorado are supported chiefly from funds derived from three sources: First, from a small per capita apportionment of money from a state school fund; second, from a general county school tax, uniform on all property in each county; and third, from a special district school tax levied by the people or their chosen representatives on the taxable wealth of the local district. The first two are not under the control of the local people, but the third is, and it represents their voluntary effort to supplement the other sources of revenue to provide the kind of a school system they want for their children.

COMPARISON OF SPECIAL SCHOOL DISTRICT TAX IN COLORADO

Consolidated Schools	*Special School Tax*	*City School Systems*	*Special School Tax*
I. New Raymer	13.60 mills	Greeley	12.70 mills
II. Lone Star	14.72 mills	Fort Collins	13.23 mills
III. Burlington	13.63 mills	Boulder	17.00 mills
IV. Yuma	13.70 mills	Pueblo District No. 1	15.45 mills
Average	13.91		14.59

We will now compare this special school district tax in the four consolidated schools described above, with four town or city school systems. In doing this it will be well to keep in mind the sparse population, low valuations, and lack of corporate property in these four plains districts as compared to the wealthy city districts with banks, stores, warehouses, office buildings, elevators, mills, factories, railroads, and other corporate property.

The comparison further supports the statement previously made that educational costs are quite uniform throughout a state, and that a good school in the country costs just about the same as one located in a near-by city. So the people in these consolidated districts maintain their good schools, including high schools, with approximately the same tax levy as the city school systems with which they are compared. It cannot be done for less. So it is our firm conviction that country people in the plains area can have good schools in most places by forming a large and strong community unit and by good co-operation, in spite of all the difficulties encountered in this part of our country.

A Resumé of Recent Constructive Educational Laws*

Including a discussion of administrative organization, school finances, training certification, teachers' tenure, attendance, courses of study, adult and community education, and teachers' retirement funds

By RICHARD B. THIEL, Professor of Education, Lawrence College, Appleton, Wis.

THE fourth type of school laws already mentioned in the preceding article has been termed the constructive. Under this heading is included the greater number of educational laws that may be called distinctively important and progressive. For purposes of convenience these may be subdivided under the following classes: (1) Administrative organization; (2) fiscal, pertaining to school support and to school expenditures; (3) training, certification, and tenure of teachers; (4) attendance; (5) courses of study, including physical education and health regulations; (6) adult education and the extension of the schools' activities into the community; (7) teachers' retirement funds; and (8) miscellaneous.

Administration: Laws pertaining to administrative organization will be taken up for each of the following units; state, county, city, or district, which will be considered in order.

State: The prospective reorganization of the state departments of education in California, Kentucky, and Utah are good examples. A similar change is being seriously considered in New Mexico. Wider powers regarding the certification of teachers have been granted to the state department of education in Arizona, Idaho, Kentucky, South Dakota, and Utah. In Arizona, henceforth all certificates will be issued by the state superintendent. In 1925 the state board of examiners was abolished in Wisconsin and their powers granted to the state department of public instruction.

California has added a branch to the state superintendent's department, known as the division of school planning, whose functions include not only a scientific study of building standards, but also actual service in reviewing, checking, and approving plans for school buildings. The act carries an appropriation of $10,000 per year, which is adequate to make the service efficient. New Jersey has added a fifth full-time assistant commissioner and has raised the salary of all such assistants to $7,000 per year. A number of other states have also taken similar action. This has resulted in greatly increasing the prestige and efficiency of state departments of education, which has done much to accelerate educational progress.

County Administration: Measures calculated to strengthen county units of educational administration have also been given attention. Alabama now permits the county board to select a county superintendent who is not necessarily a resident of the county. This extension of the field for the choice of candidates is bound to result in a better type of superintendent, which is borne out by the experience of cities, most of which have adopted this idea decades ago.

A recent Michigan law authorizes the county board to select a deputy commissioner having the

A Legislative Digest

WHILE the great amount of educational legislation that is enacted each year makes it practically impossible to describe and discuss all of them, except in most general terms, Professor Thiel has provided a most thorough digest of recent laws and ordinances appertaining to schools and education in the present discussion and in the first of the series, which appeared in January.

Other articles dealing with special phases of educational legislation by Professor Thiel will appear in future issues.

*This is the concluding article of a series on educational legislation by Prof. Thiel. The first appeared in the January issue.

same qualifications as the county commissioner of schools. Minnesota now permits clerk hire by county superintendents, enabling them to give more time to their professional duties. North Carolina has revised her laws pertaining to the county unit plan of organization making it more effective and eliminating the more objectionable features of the former plan.

The laws relating to consolidation have been materially strengthened in several of the states. Kentucky has made a careful revision of her consolidation and graded school law. Minnesota has shown willingness to try out the county unit by permitting the formation of county school districts in Cook, Itasca, and Lake counties. New York has strengthened her "community idea" of consolidation by revising the law regarding the formation of central rural schools. South Dakota now permits consolidation, following somewhat the New York plan, even if all of the schools in the township are not included.

Other laws affecting county administration are the acts in New Jersey and New York raising the salaries of the supervising officers, and a law in South Dakota permitting greater flexibility in the issuance of teachers' certificates.

Local school administration: In the field of local school administration two very interesting laws deserve consideration. In South Dakota, in sub-districts under the township system, whenever a petition signed by three-fourths of the parents or guardians of persons of school age belonging to the particular school for which the teacher is petitioned must be regarded by the school board if filed not later than the last Tuesday of March. This is an exception to the general rule, which gives a board of education full discretion in the selection of teachers whose salaries are legally provided for by district funds.

A Law Long Needed

The Connecticut law concerning the appointment and duties of the superintendent of schools has enacted into law a fundamental principle long advocated by experts in school administration but to the best of the writer's knowledge has never before been written into statute law. The act known as chapter 142 gives the superintendent the legal right of taking the initiative in the selection of teachers. It is quoted in full: "Section 893 of the general statutes is amended to read as follows: The town school committee or board of education, or board of school visitors of any town may choose by ballot a superintendent of schools and may fix the salary and prescribe the duties of such superintendent. A majority vote of all the members of the committee or board shall be necessary to an election. *The duties of such superintendent shall include those prescribed by the general statutes for acting visitors and the nomination to the school committee of teachers, for the several schools in such town. Such committee shall accept or reject each such nomination within one month from the date it shall have been made.*" The last two statements confer upon the superintendent the legal right to nominate teachers for appointment and compel the board to consider his nominations.

The development that led to the adoption of the law is interesting. A law nearly a century old authorized the board to delegate to one of their number, or to one not of their number, the duty of visiting schools. In 1917 the law was amended, which permitted the board to authorize the supervising agent to employ teachers and if said agent was not authorized to employ teachers it was provided that he have the right to make nominations of teachers to the board. However, the supervising agent was not necessarily the superintendent. The law as recently amended, specifically places this power in the hands of the superintendent where it should be.

Tentative Budget by June 1

In Utah, chapter 75, laws of 1927, provides that the tentative budget be made out by the superintendent of schools on or before June 1 of each year to be accompanied with a statement of the financial condition of the district by funds as of May 1. The budget must be in the hands of the secretary of the board at least fifteen days before formal adoption, which must not be later than June 30. Any budget appropriation may be reduced by act of the board provided notice of the proposed action is given to all members and the superintendent at least one week in advance; neither shall there be an increase except by the written request of the superintendent. Thus, another fundamental principle of educational administration long championed by the educational experts has been enacted into law.

Laws relating to fiscal matters: With the rapid expansion and extension of educational facilities it is to be expected that to meet the increasing school costs legislation for the purpose of providing the necessary funds becomes most urgent. Even in states where the support of education depends almost wholly upon local taxation it becomes necessary to raise the tax limits imposed or the assessed valuation upon which the tax is computed.

The more progressive states have made provision for a larger state school fund distributed upon a more equitable basis so that those localities

most in need of aid may receive it; for only in this way can the slogan "Equality of educational opportunity" become more than a fine sounding phrase. It is perhaps in this direction that the most effective progress has been made.

To provide the necessary funds, one of two courses has been followed; either the money is appropriated out of the general fund, or else a specific tax is imposed, the proceeds of which are turned into the school fund. In either case it becomes necessary to increase the tax rate, or to devise new types of taxes, and often both.

Commissions for Providing Additional Revenue.

This matter of providing additional revenue has become a problem to the extent that two states at least, Illinois and Pennsylvania, have created commissions to make a special study of it. In Illinois the commission is instructed to investigate the revenue system of the state and also to study the revenue laws of other states and to make a report with recommendations to the next legislature. In Pennsylvania the commission, of which the superintendent of public instruction is chairman, is to make a study of the distribution of state subsidies to school districts and likewise, submit recommendations to the state's law-making body. These reports will be of especial interest to students of school finance.

Among the states that have materially increased their school funds the following stand out conspicuously: Alabama, has added $4,000,000 to the general revenue bill with special provisions for educational support and with additional appropriations of $3,500,000 annually for current operations as specified in the Unified Educational Program. In January, 1928, the people of the state voted on a prospective bond issue of $20,000,000, of which $200,000 is to go to each county and the balance to the normal schools and higher institutions of the state. There are a number of other appropriations for miscellaneous educational purposes, chief among which is that for the maintenance of the child welfare department. It is conservative to assert that in educational legislation the past biennium, Alabama deserves a prominent place.

Illinois, New York, and Pennsylvania have added substantial increases to the school funds. In New York the increase for 1928 approximates $16,500,000, with further increases for each of the three succeeding years. When it is considered that the total amount annually distributed at the present time is already approximately $50,000,000, it becomes evident that New York seriously regards education as a state function.

The same may be said of Pennsylvania, whose legislature appropriated more than $65,000,000 for education for the biennium 1927-29, of which $47,500,000 goes to the school districts. The significance of these appropriations is better understood when comparison is made with states like Kansas and Nebraska, in which the states does little beyond distributing the income from the permanent school fund, which amounts to a very small fraction of the total school costs.

Most of the states depend largely on a statewide general property tax in providing state school funds for distribution to districts. Florida is increasing her school funds by an additional tax of one cent on gasoline and a tax of one-fourth of a mill on general property. Georgia allows a tax of one cent per gallon for the county school funds, with an additional half cent for the state equalization fund, on all gasoline sold; the latter fund is further increased by a one-cent tax on kerosene.

Tennessee has set aside the entire proceeds of the tobacco tax for school support. Arkansas and Oklahoma secure considerable amounts from gross production taxes on oil, gas, and minerals; Montana from metal mines, oil royalties, and inheritance taxes. A growing number of states is securing increasing amounts of revenues from taxes on the incomes of individuals and corporations, and from various types of license taxes. Maryland provides for an increased license fee for persons catching oysters with rakes or tongs, one-half of which is paid to the county commissioners for schools.

Delaware and North Carolina stress the more careful and scientific expenditures of school funds by carefully constructed budgeting and accounting acts. Arkansas, North Carolina, Pennsylvania, and Tennessee have provided building funds to be loaned to districts engaged in school building programs. Idaho, North Dakota, and Ohio have revised their laws pertaining to bond issues.

School District Funds Are Equalizing

In one sense, all funds distributed to school districts by the state are equalizing funds. The real problem, however, lies in securing in each district as good a quality of educational opportunity as the community needs, *and the amount of aid should be determined by the effort the local unit puts forth according to its ability to pay.* Since the local contribution is usually in the form of a general property tax, its effort may be measured by its tax rate and its ability to pay, by the assessed valuation, preferably at its full value.

For an equalization fund to operate successfully, account must be taken of the type of instruc-

tion, and the size of the school unit. Normally, the per pupil costs in graded schools and high schools exceed those in the rural one-room schools. Similarly, it costs relatively more to instruct a pupil in a small school than in a large one of the same type, consequently the equalization scheme must provide for some kind of weighting to smooth out these inequalities.

Among the states that have recently provided equalization funds, or have amended or revised their administration, there are: Arkansas, Florida, Georgia, Indiana, Massachusetts, Michigan, Montana, New York, North Carolina, Ohio, Oklahoma, Texas, Vermont, and Wisconsin. In Washington an effective equalization bill was vetoed by the governor, while in South Dakota the entire appropriation bill met a similar fate.

Every Unit Assured of Some Aid

Most of the equalization schemes have much in common. Usually every school unit is assured some degree of state aid. If this were not the case it would be impossible to get any legislation at all as the majority would not favor it. In addition to this a further amount determined by the school tax rate and the local assessed valuation is provided.

Vermont places the towns in seven groups according to their school tax rates, and other things equal, the lower the rate the less the amount received. The recent law passed in Wisconsin, although it makes the error of excluding high schools from participating in its benefits, has many excellent features. For each elementary-school teacher a sum of $250 is distributed to which the county adds an equal amount. In addition to this there is an amount computed by the following formula: ($250,000-true assessed valuation per elementary-school teacher) $\times$ (local school tax rate) $\times$ (number of elementary-school teachers); provided that the total amount shall not exceed $600 per teacher.

It is assumed that if the assessed valuation equals or exceeds $250,000 the district is wealthy enough and does not require the additional aid, otherwise it shares in inverse ratio to its paying ability. The strong feature of the law is its elasticity and simplicity of operation. The funds are secured from the proceeds of a tax of 1.1 mills on the general property of the state which will produce about $6,000,000 annually. In order to keep up the quality of instruction a number of conditions relative to securing aid is set up.

Other important laws relating to financial aid are as follows: Idaho, Missouri, and West Virginia grant further aid for transportation of pupils and consolidation projects. Maine, New Hampshire, Texas, and Wisconsin have permitted increases in non-resident high-school tuition. Vermont and West Virginia permit payment of tuition where it is more convenient for pupils living near the state line to attend schools outside the state. Maine, Massachusetts, and New York have increased their quotas in aid of supervision, and New Jersey provides a state contribution of $200 for each teacher, or principal, employed in evening high schools.

Training, certification, and tenure of teachers: As reflected by the laws recently passed a decided tendency to raise the qualifications of teachers is noticeable. One aspect of this is shown in the improvement of teacher training institutions by establishing higher standards of work. Arizona, Maine, and Wisconsin have recently changed their normal schools to teachers' colleges with authority to confer degrees in education. In Connecticut a recent law requires the state board of education to maintain the normal-school buildings, and money was appropriated for the erection of two dormitories. North Carolina has increased materially the appropriations to teacher-training schools, whereas in Wisconsin a similar bill was vetoed by the governor, creating an emergency that will have to be met by a special session of the state legislature.

Contracts for Practice and Observation

To facilitate a more efficient and practical program of teacher training, Michigan has given the state board of education authority to enter into contracts with school districts in proximity to normal schools for work in practice and observation. Arizona and Florida have liberalized their laws pertaining to scholarships for prospective teachers. In Arizona the candidates are selected by competitive examinations, each county being entitled to one such scholarship in the state university, the value of which is fixed at $1,000. In Florida scholarships are allowed in each state senatorial district, one for the men at the state university and one for the women at the state college for women.

Connecticut allows scholarships valued at $150 in towns having a valuation not over $1,500,000. Florida and West Virginia provide teach-training departments in high schools, evidently as a temporary relief measure for securing better preparation for teachers in the one-room schools.

In providing for the certification of teachers it has already been pointed out that there is a growing tendency to concentrate this power in the state department of education and to recognize diplomas granted by approved and accredited teacher training institutions. Nevertheless, much

remains to be done by most states in this respect. There are tendencies pointing in the direction of more legislation along this line in the very near future.

The problem of permanent or indefinite tenure for teachers has again come to the surface in several of the states. Changes in the existing laws were made in New Jersey and Montana, the only states until recently, that had tenure laws that were general in their application. In Montana the law was in danger of repeal, but it weathered the gale and remains on the statute books in modified form. After three years of consecutive service in a given school district, a teacher or principal is deemed re-elected unless informed to the contrary by action of the board at a formal meeting of the board by a majority vote on or before May 1.

New Jersey has extended the provisions of its law to district clerks after fourteen years of service, including the time prior to the passage of this act. Illinois provides that teachers, principals, and superintendents after a probationary period of two years, may be employed for three-year periods. Minnesota's new law applies only to the three first-class cities of the state. California has revised her tenure act and has made its application general.

An interesting tenure law was adopted in Indiana, March 8, 1927. It provides that after five years of consecutive service in any school corporation any teacher who enters a contract for further service with such corporation becomes a permanent teacher of the same. Such an indefinite contract shall remain in force unless succeeded by a new contract signed by both parties. Otherwise the contract cannot be terminated by the school corporation without cause and as provided by law.

Loopholes in Indiana Tenure Law

However, a school district may change its salary schedule on or before May 1, perceding the ensuing school year. It thus appears that a district may get rid of a teacher by lowering the salary to the "leaving point." How this will work out remains to be seen. It appears that excellent opportunities for litigation are provided. It has already been reported that there is a tendency on the part of school districts to contract with "new" teachers rather than those that have already served them for five years.

Attendance: Compulsory attendance laws have been in force for some time in all of the states. Most of these are closely linked up with laws dealing with the employment of children. There is a tendency to enforce these laws more strictly and to make their provisions more drastic. New Jersey provides for a county attendance officer at an increased salary. Maine decrees that all children under seventeen, except those adjudged abnormal, shall attend school until they have completed the eighth grade. In New Mexico no labor permits may be issued to children under the age of fourteen, except during vacations; Rhode Island sets the minimum age at fifteen without exceptions.

Courses of study: Changes in courses of study show the following tendencies; (a) further emphasis on civic and ethical training, (b) wider extension of public school opportunities, and (c) greater attention to physical education and matters pertaining to health. Four states, Arizona, Missouri, New Jersey, and Washington, have fallen into line in requiring instruction in civics involving a knowledge of the state and federal constitutions in the seventh and eighth grades. Arizona requires all teachers to pass an examination in these subjects. New Hampshire makes mandatory the display of the United States flag on all school buildings, public or private.

Nebraska Emphasizes Character Course

Nebraska requires all teachers in any type of school, public or private, to present instruction "with special emphasis on common honesty, morality, courtesy, obedience to law, respect for the national flag, the constitutions of the United States and Nebraska, respect for parents and the home, the dignity and necessity of honest labor and other lessons of steadying influence, which tend to promote and develop an upright and desirable citizenry." The act further provides that the state superintendent formulate an outline with suggestions for this work for the first twelve grades.

North Dakota requires "the display of a placard containing the Ten Commandments of the Christian religion in a conspicuous place in every schoolroom, classroom, or other place in said school where classes convene for instruction." The provision extends also to the university and normal schools and gives the department of public instruction authority to have the cards printed and to dispose of them at cost. The wisdom of such measures may be questioned but it shows a purpose that may not be entirely disregarded.

Among the extension of the scope of public instruction Arizona, Iowa, and Kansas permit the establishment of kindergartens along lines advocated by Nina C. Vanderwalker, of the Bureau of Education, and known as the "mandatory-on-petition" type of law. Iowa and Missouri are the latest states to authorize the establishment of junior colleges. There has been so much legisla-

tion dealing with physical education, health, sanitation, child welfare work, and the care of crippled and unfortunate children that this topic will not be treated here, but may be reserved for treatment in a subsequent article.

Adult education: The problem of adult education has received careful attention at the hands of our legislators and a number of excellent constructive measures have been written into law that deserve more attention than it is possible to give them here. The rapid spread of the movement seems to indicate the dawn of a new day in our educational development which merits careful study and analysis. Connecticut has authorized the state board of education to establish a division of adult education and to appoint a director and fix his salary. Florida, Nebraska, New Jersey, Pennsylvania, and Rhode Island have passed laws permitting boards of education to provide instruction for adults at public expense. The purpose of work is not only in support of the Americanization program but also to satisfy the intellectual hunger of so many adults that have not had educational opportunities in their youth that they now crave.

Changes in Retirement Fund Laws

Retirement funds for teachers: Seven states have made a more or less important change in their teachers' retirement fund laws; California, Connecticut, Indiana, Maine, Maryland, Montana, and Nevada. There is a tendency on the part of all states who have entered this field to revise their laws according to the application of scientific principles, although some have still a considerable distance to go in this respect. Unfortunately there are still states who believe a system of this kind can be financed at a "dollar a month." California has provided for a careful actuarial investigation of her retirement fund. Connecticut has slightly modified a most excellent law. The new Maryland law strikes one as a piece of commendable legislation drawn up along sound and scientific lines. It provides for disability as well as service retirement and allows a death benefit consisting of the accumulated contributions and fifty per cent of the average final salary. The teachers' contribution of five per cent of their salaries is in accord with the better types of retirement systems.

State-Wide Surveys

Miscellaneous: Following the recent examples of Virginia, Florida and Montana are making provisions for a state-wide survey, although the amount appropriated by the latter, $5,000, is scarcely adequate. In Nevada a bill providing for a survey failed of passage. California has inaugurated an experiment in the co-operative purchase of school supplies, which if it proves successful, may become popular as one of the means of keeping down the so-called "overhead" expenses. Along somewhat similar lines is the establishment of the textbook commission in Oregon.

Educational Legislation Is Progressing

In summing up it may be reiterated that on the whole the recent educational legislation has been progressive, although there are instances to the contrary. Among the predominant measures were laws pertaining to fiscal matters, the quest after additional sources of revenue and greater efficiency in expenditures. More effective methods of administration and more efficient types of organization are being set up. The improvement of the service itself is being sought through emphasis of the more practical and workable courses of study; extensions to take in more individuals not reached heretofore, through the establishment of vocational and evening schools. Also more attention is being paid to civic training, health, and physical education; to the better training of teachers and to methods of attracting and holding the best instructors through adequate salary schedules and dependable provisions for their retirement.

Such have been the materials our law-makers have labored with in our behalf and as our representatives. If the results have not been satisfactory it is largely because of our own lack of interest and our failure to explain, champion, and support those measures that can be realized only through public opinion that has been thoroughly aroused.

Constructive Work is Needed

It will avail little to condemn legislatures for their adverse or reactionary attitudes; it is necessary, rather to do constructive work and a great deal of it. As one secretary of a state teachers' association put it: "The legislative committee followed a policy of education and persuasion based upon the fundamental principles of public welfare rather than upon a policy of making demands for ourselves as a class. In this way we can again go before the next legislature and urge principles which are admittedly right and sound."

With a strong educational organization backed by public opinion the future will be full of promise in every state if this wise counsel is followed. For after all a legislature cannot initiate progress, it can only recognize it once it has been initiated by organized workers.

Can the Superintendent Develop Education for Health?

Proper guidance and instruction of the younger pupils, particularly on subjects concerning their own welfare and well being, brings a response that is its own reward

By CHARLES H. KEENE, M.D., Professor of Hygiene, University of Buffalo

THE CONTENT and teaching methods of health training and instruction have traveled a long way along the road toward functioning efficiently during the past decade. While for fifty years or more there has been in the public schools a subject on the program of studies known as "physiology," it has been wretchedly taught, and so far as any practical results are concerned had been, before the World War, a flat failure. This failure was due to several factors. First, the content was not interesting to the average child and many of the facts thrown at him were demonstrably false. Second, the method of teaching was wholly wrong. If there is any subject in the program of studies that must be taught by doing rather than by children collecting facts from a textbook and pouring them back with considerable inaccuracy to the teacher—who frequently knows just as little about the subject as do the pupils—this subject is health. For instance, information concerning the number, shape, and structure of bones and teeth is absolutely valueless if the possessor neither knows nor does anything to cause them to grow properly and firmly, or to retain form, strength, and position.

Training and Instruction

The change in title from "physiology" to "health training and instruction" is an epitome of the change that has taken place in the content and teaching of the subject. Notice that the new title includes training as well as instruction. In order to secure satisfactory results either in devising a course of study or in putting out directions regarding method for securing this new ideal, certain things are essential.

Teachers, parents, and children must understand certain fundamentals. The new idea is a health program, not one relating to medicine nor to disease. "Health is that condition of the body and its organs necessary to the proper performance of their normal functions." It is the condition that is ordinarily spoken of as "physical fitness." It goes deeper than that, however, and includes mental, moral, and social fitness. Its attainment means completeness of body, of mind, and of character.

The only way in which health training and instruction can be made to reach the intimate, daily, personal lives of all our people is through training the children in the public schools. In teaching health we must have certain goals: (1) To establish health habits and standards, emphasizing acts rather than knowledge; (2) to instill a working knowledge of practical facts relating to cleanliness and sanitation, to food, fresh air, exercise, rest, the causes of preventable diseases, and the means of checking them; (3) to build ideals regarding health, beauty, and service for self, school, and community that will result in better living; (4) to develop the individual's sense of his responsibility, not only for his own health, but for that of the community in which he resides, and to set standards of health for the community.

Establish Right Habits

Such a program, to be successful, must be graded, and have progression fitted to the age and surroundings of the pupil. Professor William James says that the teacher's duty consists "chiefly and essentially in training the pupil to behavior," and that education itself is "the organization of acquired habits of conduct and tendencies to behavior." If this be true generally of education, how much more true is it of education for health. The chief aim, then, of health teaching is to establish right habits. The younger the child, the more easily and successfully these habits may be fixed. Frequent repetition throughout the years is a necessity in health habit building. In order to maintain the interest of the child we must from year to year make applications that are adapted to his needs and to the stage of his development. The work in each grade, therefore, must be approached through some definite, present need and interest.

These interests vary with the child and with his environment. The season of the year and the state of the weather give repeated opportunities for such teaching as protection from cold and rain, the use of proper clothing at different seasons, methods of preventing "colds," and of preventing and treating frostbite and sunstroke. The seasons also provide convenient times for developing habits of good citizenship such as clearing snow from sidewalks, help in anti-fly campaigns, and for discussions of the relation of dusty days to the spread of disease by spitting, and of floods and their relation to contamination of water supply.

Permit Health Correlation in Studies

It will never be possible to set aside definitely for health teaching enough of the daily time available for school use so that all the necessary habits may be formed and information acquired concerning health. All school courses must be devised and taught in such a manner, then, as to permit frequent opportunities for correlation with the various parts of the health program. This will add interest not only to the health teaching, but to the other subjects. Arithmetic, for instance, becomes a matter of personal interest when we use its processes for finding out how much above or below standard weight we may be, or how much our class is above or below what a group of that age and height should be, and what percentage of the standard these differences are. Physical geography becomes a matter of fascinating interest if we know its relation to the purity and safety of the water that we drink. Art becomes a more living thing when it is used, through posters and legends, to emphasize good habits relating to food, exercise, fresh air, cleanliness, and so on. History becomes much more than the accumulation of dry facts when we know the influence of health and disease on the great movements of history.

A great civilization in Central America was annihilated by disease, and the reestablishment of civilization there has been made possible by the conquest of yellow fever. The success of Japanese armies in the Russo-Japanese War was due largely to the skill of Japanese medical officers who kept such diseases as typhoid fever under control. To go back centuries further, the probability is that the invasions of central and western Europe by the Mohammedans were more checked by pestilence than by the arms of the western defenders. The fall of Rome was preceded, and probably made possible, by an epidemic of the plague that destroyed half the population of Italy.

We should also take advantage of emergencies that arise in the community, such as epidemics of disease, disasters in mines, calamities like great fires, cyclones, and wrecks, all of which make convenient hooks upon which to hang timely discussion concerning disease prevention, "Safety First" and "First Aid."

The child has little interest in health as health, but he is interested in being well and strong so that he may do things, such as being able to run faster or jump farther than his neighbor, or to participate on a class or school team, or (and, jokes to the contrary notwithstanding, such children are not rare) that he may more regularly attend school and reach higher class standing.

There are certain things in the budding life of the child that should be seized upon and made a part of the health program—his love of activity, of imitation, of making things, of collecting, of competition, of approbation, and his joy in rhythm, motion, color, and in things that are alive. His active imagination, and gradually increasing ability to work with his fellows should be turned to profitable use. Efforts to satisfy these desires should be woven into our plans for health teaching. These should include active games, stories, dramatization, songs, song plays, pictures, especially those that are colored and more especially those that he makes himself, the care of pets, playing in the sand, gardening, cutting and pasting, and competitions either between individuals or between groups. We should utilize the thing of which many of us, particularly parents, lose sight—his real desire to please, and our duty to him to praise or to reward successful efforts.

Child Begins As Individualist

The child starts to school as an individualist. As he grows older he very gradually acquires ability to co-operate and to participate in plans and campaigns where group action is necessary. While at first he likes to make things simply for the joy of constructing, there comes a time, probably as early as the third grade, when he is not satisfied unless the things constructed have a practical value. He is not interested in abstractions; truth and obedience *per se* mean little to him, but he is interested in the result of his actions in these respects.

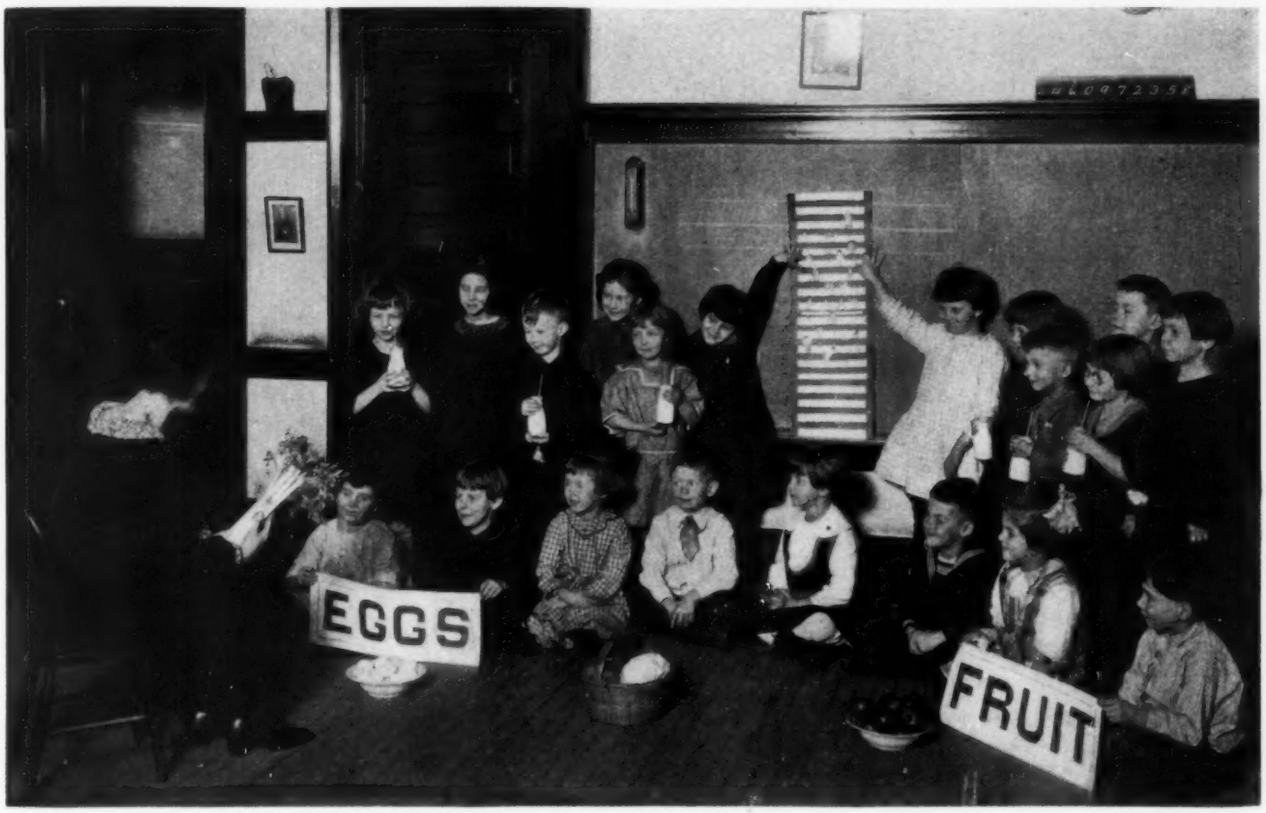
The type of instruction that has been used in teaching physiology must be entirely changed. The child should be taught, not simply by means of a specified period of the day devoted to formal instruction, but by making this subject a part of all other subjects. The incentives to the pupils for participation in such an effort should be found in the class itself.

The greater the number of projects and problems that the class originates, the better the re-

sult will be. Not only should the program and method be adapted to the age, changing seasons, community emergencies, and so on, but it should be adapted to the conditions prevailing in the particular school or community. Some schools need especial emphasis on diet, some on healthful and sensible clothing, others on cleanliness. It is unwise, however, to demand attainment that lack of facilities renders practically impossible. For example, children at school cannot be expected to keep their hands clean unless facilities for washing them are provided at the school. Nevertheless, even under these unfortunate circumstances, the need of cleanliness should be repeatedly emphasized. Opportunities for practice, such as hand and face washing, and toothbrush drills should be provided. It is astonishing how few people know how really to wash their hands. The demand on the part of the pupils and parents for cleanliness will ultimately compel the installation of facilities in the school.

The teacher working alone rarely can accomplish these aims. She must have the co-operation of the school nurse, the parents, and the community at large. On the average, any community has just as good schools, and just as adequate health facilities in those schools, as it deserves. Just so long as a community shirks its duty and responsibility, and permits the board of education to carry on schools in inadequate and insanitary buildings, without provision of proper personnel to guard the health of the pupil, just so long that community has only itself to blame for the preventable sickness and deaths that are sure to result.

In devising a plan for teaching health, there are special aids and devices that have been found useful. Among these may be listed such things as daily inspection of the pupils and keeping records on the results of these inspections. The use of songs, singing rhymes, limericks, and dramatizations all have their place. Special devices may be used under some circumstances. The introductions of a life-size doll into the third grade, for instance, has been known to accomplish wonders in arousing interest in health matters. The girls can be taught how properly to wash her, dress her, care for her hair, and so on. The older ones can make her clothes and the bed clothing. The boys can make the bed and other furniture, and even devise toy houses with proper lighting and exposure to sunlight. The constructive instinct of children should be diverted to the advancement of the health program. Making scrapbooks and posters, the utilization of sewing and manual training, all present possibilities.



Creating an interest in right foods at a time when habits are forming.

The responsibility of each individual in the classroom for the health of the group should be emphasized. In one school this was brought about by the aisles being given the names of streets and each seat in each aisle given a number. With children in rural schools this is modified to give each seat a farm name, as "The Elms," "Hillside Farm," and so on. Each owner is responsible for his premises. This centers responsibility for community affairs in the individual. It is real training in citizenship.

The teacher should take advantage of the health phases of the community life. Field trips to dairies, markets, bakeries, factories, mills, and shipyards, to see what precautions are actually taken to keep things clean and safe, should be part of the plan. In studying fire prevention, intense interest is aroused by a visit to the fire department, supplemented by a talk from the chief on the way to prevent fires and what to do in case of fires. With older groups, visits to water purifying systems and sewage disposal plants are of great value.

Classroom Health Departments

We should take advantage of the child's desire to compete and to organize. All sorts of health contests may be devised, as well as debates on health topics. Certain organizations within the school are extremely valuable. Each classroom should have its own health department, with a secretary and various inspectors. One inspector is in charge of temperature, another of opening windows, a third secures proper adjustment of window shades, a fourth inspects the cleanliness of individuals, another investigates the cleanliness and neatness of each seat and surrounding territory. Others may have charge of the blackboards, neatness of the playground, protection of the water supply, and so on. A clean street league also arouses interest in many problems of community sanitation as well as actually improving the appearance of the thoroughfare.

The Modern Health Crusade has been very beneficial in many communities in arousing interest in health matters. Self-reporting by pupils, however, should always be checked by inspections made by other pupils, by the classroom teachers, or by the school nurse. Self-reporting, unless reinforced and controlled by some system of inspection, has a tendency to lead to misstatements.

Little Mother's Leagues should be organized among the girls. The purpose of these is to instruct girls, largely those of the seventh grade and beyond, how to care for babies. In many sections of our communities this is particularly necessary because these older girls are largely responsible for the feeding and care of younger brothers and sisters.

Children practically never, and adults only rarely, are willing to work for health purely for health's sake. There must be some more immediate objective. It is necessary, therefore, to give children some direct recognition of accomplishment in health activities. Courses in hygiene and physiology in the school should receive equal credit, in proportion to the amount of time used, as is given to arithmetic, English, or any other subject. Report of accomplishment should be sent to parents on the regular monthly report card. A cleanliness roll call may be devised with the use of score cards, or the scores may be posted in the front of the room showing the relative standing of each row in the classroom. Some little privilege should be granted the best row. The collecting instinct may be utilized by giving pins, buttons, badges, or other simple tokens for accomplishment. Exhibits have a particular value not only to the pupils themselves, but to their parents.

There is no subject in the school program of studies where the acts and personality of the teacher herself have so much effect on the pupils as in health teaching. Continuously, day by day, hour by hour, minute by minute, she is unconsciously instilling ideals in regard to health matters. Her personal cleanliness, neatness, habits, posture, voice, vitality, and temperament, all affect the children, directly and continuously.

What Are the Results?

Results count. For the teacher merely to teach "at" this subject for thirty minutes per week is of little value. There are definite ways whereby we may judge the efficiency of the teacher in this field. Do the children themselves take an interest in keeping clean—are their homes and surroundings clean and neat? How much improvement has there been during the previous school year? Does the teacher know the physical condition of the pupils in her room, particularly as regards teeth, eyes, hearing, the frequency of colds, sore throats, etc.? What of his posture? If bad, what effort is she making to improve it? Does the child under her care get a sufficient amount of the right kind of food, sufficient sleep, the right kind of clothing? Is he a mouth breather? Are his teeth, face, and hands clean? Are these conditions steadily improving? Have the children participated in community health activities and campaigns? Is the classroom well-ventilated? Are the window shades properly adjusted? Is there a parent-teacher association, is the teacher actively participating in this association? Is the board of

education exhibiting greater interest year after year in health problems? What has the teacher done to stimulate this interest? All of these factors must become a part of the teacher's life and interest if the health program in the schools is to be successful.

Throughout such a program, the teacher and all concerned must keep it definitely in mind that this is not a medical program, not a disease program, but a program for health. Three centuries ago ignorant, insanitary methods of living, with the sure and certain accompaniment of recurring waves of great pestilence, caused the normal expectation of the duration of life of the average individual to fall at twenty-seven years, or thereabouts. At the present time, in the United States, the average baby may be expected to live at least fifty-seven years.

While it may be necessary at times to discuss bad conditions, disease, and death, the important thing to hold before pupils is this forward-looking, hopeful situation. For instance, it may be advisable to mention to them that tuberculosis kills approximately 100,000 people in this country each year, but the thing to emphasize is that for the past sixty years the death rate from this disease has fallen about thirty per cent each generation, that during the last generation it has diminished fifty per cent, and that by the use of better housing, better food, more rest, fresh air and sunshine, and proper recreation, this disease is not only curable, but preventable. The fact should be emphasized, too, that typhoid fever, formerly the scourge of armies and cities, is becoming almost unknown in the American armies, and a very rare disease in those of our cities that have proper sewage disposal, and safe water supply, and that guard the handling and distribution of milk, fruit, vegetables, and other foods that are to be eaten raw. In brief, we should emphasize not disease, but health.

We should also make prominent the fact that pupils in our schools, and our citizens in general, have certain health rights. We should teach them to insist that community, state, and nation set such standards of living as to protect the health of themselves and of their families. They must be made to understand also that only the strong, healthy body and mind can give them that broad, firm foundation upon which good personal and community health may be built.

Fostering the selection and correct eating of the right kind of foods.

This health teaching should be firmly interwoven with the other six chief factors in an adequate school health program, which are as follows:

First; hygiene of the school plant, which includes insistence upon provision of proper facilities for heating, ventilating, air moistening, lighting,

arrangement of blackboards, clean drinking water distributed in a sanitary manner, sanitary toilets, proper floor area, playground area, and equipment, and proper cleaning methods.

Second; physical education, a real vital part of the education of all children, with activities carried on in classroom, school corridors, playrooms, gymnasiums, swimming pools, playgrounds, and athletic fields. The content is extensive, covering not only such material as formal exercises, games, and plays, but including such less known factors as folk dancing and other rhythmic exercises, story plays, songs, games, and mass athletics. On the side of athletics, intramural and large group competitions should be emphasized, and inter-scholastic competition made only an incidental part of the general program. The effort should be to spread athletic activities so that every pupil may have a chance to compete. The need for girls to have this opportunity should be particularly emphasized. A considerable part of the efforts toward improving the public health through infant welfare activities is wasted, because we begin to care for our babies from ten to twenty-five years too late. The proper and most efficient place and time to begin this care is in the public schools when the potential mothers are elementary-school pupils.

Formal gymnastics, whether calisthenics or exercises on apparatus, have a definite place in such a program but, of course, a subordinate one. They should not be the whole or major part of the program. Neither should play and dancing monopolize the field. The real truth of the matter is that we should use all the factors available in the science of physical education, and not over-emphasize any particular phase of it.

School physical education activities also include those of the playground, whether this playground be located at home or school, or whether it be a community, town, or municipal project, and all these grounds and activities should be under the guidance of the board of education.

Hygienic Program Arrangement

Third; the hygienic arrangement of the school program, covering not only the number of hours a day that pupils of different ages attend school, but going into details regarding the proportion of different kinds of subjects that should be taught and the times of the day at which these may best be taught, proper interspersion of these teaching periods with relief drills and various other physical activities, and including within its scope the consideration of the feeding of the child, particularly the school hot luncheon at noon.

Chronological age is not a proper qualification for entering the first grade. Pupils should be admitted only after successfully passing definite physical, physiological, and psychological tests. In other words, the basis of admission and promotion should be physiological and psychological rather than chronological.

Fourth; such a reorganization of normal school facilities and program of studies, and such a planning of buildings, arrangement of program, and opportunities for recreation for teachers in service as will consistently safeguard the health of the teacher.

Real Health Supervision

Fifth; that part of the health program that is going through such a rapid development and transformation, particularly as this is seen to be more and more a vital part of the activities of the schools and of the responsibility of school officials. This activity has risen from a primitive medical inspection concerning itself almost entirely with acute infectious diseases, to become a physical examination with some corrective activities, and now broadened into a real health examination and inquiry into all of the health factors surrounding the child, with efforts to improve these factors as well as to remove his physical defects. It started as a program of "detection," added to this "correction," and now has assumed the attitude of "prevention."

Sixth; definite and active steps in the proper training of teachers to produce a sufficient kind and amount of personnel, not only instructors in physical education and hygiene, but also nurses, physicians, dental hygienists, and teachers for special classes, as will make it possible for local communities to establish and carry out this program.

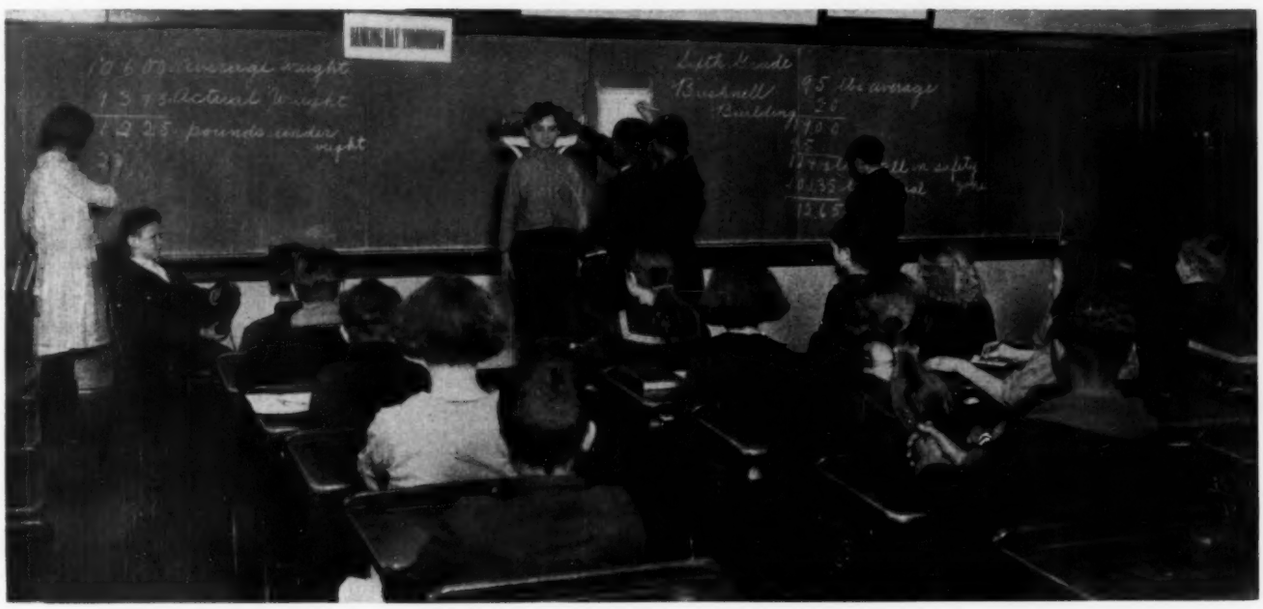
These, added to the seventh, which we are now discussing, make a definite health program, each of the factors of which are peculiarly and intimately a part of the duty and responsibility of the board of education.

The specific program in "health training and instruction," always taking into consideration the factors that we have been discussing, should attempt a gradation of the work, and an adaptation to the age and circumstances of the pupils, which roughly corresponds to the following:

During the first four grades, the effort should be primarily to build definite habits leading to cleanliness of the skin and its appendages, the care of the teeth, and of the mouth and nose, the selection and proper eating of the right kind of foods, regular, habitual elimination of waste, a sufficient amount of sleep under proper conditions, good posture, the use of fresh air and sunshine, the

development of caution against accidents, the proper articulation of the English language, the selection of the right kind of clothing, the building of good mental habits and of habits of service, the establishment of good health factors about the home including cleanliness, the use of water both inside and out, the relation of food to development, and the proper alteration of work, play and rest, carrying on always definite efforts to walk, sit, and stand correctly. While some informational material has to be given along with these efforts, the prime object to be accomplished is good habits in these essential factors in health.

In some states secondary-school education begins in the seventh grade. Pupils at that time



Correlating health and arithmetic in a sixth-grade class.

Beginning with the fifth grade, we may introduce a slight amount of the older type of physiology teaching, discussing very briefly such things as the bones, the joints, the muscles, and the special senses, but keeping it in mind that the main emphasis should be on the function of these organs, rather than on their chemical or anatomical structure. The uses and abuses of the special senses should be emphasized, and the necessity of avoiding toxic substances, particularly alcohol and tobacco, should be made prominent. We should now take up the study of certain of the disease-bearing insects, beginning with the fly.

In the sixth grade, we may go a step further, giving the minimum essentials regarding circulation and respiration, tying this up with the health habit work of the earlier grades by discussion of tuberculosis, its causes and prevention, always emphasizing the fact that this is an unnecessary disease. Following this, we swing into discussions of refuse disposal and protection, and of the hygiene of different races, emphasize again food and food selection, dip into industrial hygiene so that pupils may know the dangers of different occupations before they enter them, and conclude the work of the elementary schools by tying up all these factors in a general discussion of the effects of health protection upon the conditions of life and living. The teacher must always keep it in mind that the children should do much of the discussing, she merely acting as a guide and director of activities.

In the seventh grade, we leave the intimate guiding and mothering of the elementary school, enter the junior high school, and become more independent of both home and school ties. They have arrived at a stage of mental and physical development that renders necessary a different type of appeal, and permits emphasis to be put more largely on informational material. We still insist upon good health habits. As they progress through these upper grades, pupils more and more assume the responsibility for carrying on these definite health activities, both in the acquirement of information in the classroom, and in the adaptation of this information to their daily life outside. They are ready now for a course in first aid, for definite discussion of the processes of digestion including, too, information regarding food and food selection. Consideration of the different processes of "keeping fit" by means of food, exercise, fresh air, and sleep, and of proper elimination of wastes, is essential. They should begin to understand something of the

nervous system. Very little is given regarding its structure, however, but much concerning its function and the need for every individual to pay particular attention to those factors that affect mental well-being, such as sleep, work, rest, play and recreation, fatigue, emotions and their effects, and the abuses and dangers of drugs and narcotics.

At the time of entrance into the eighth grade children are old enough to understand the meaning and value of health, that health is a "purchasable commodity," and that it affects not only the physical, but the mental, aesthetic, and economic side of life. Closely tied up with the course in civics, opportunity should be given for understanding the intimate relation of health to matters of citizenship, not only in the legal phase of control of communicable disease, safe disposal of wastes and so on, but in the need for support of hospitals and dispensaries, and for funds for the destruction of insects and vermin. Emphasis should be placed upon the proper construction of sanitary school houses, together with some very definite instruction as to what constitutes a safe and sanitary school building, so that the imposition upon communities, by inefficient architects and careless or inefficient boards of education, of such pitifully inadequate school structures as we oftentimes see built, may cease.

Concluding Eighth Grade

Because many children leave school permanently at the end of the eighth grade, we should repeat here, with added emphasis, previous instruction in regard to the abuse of drugs, narcotics, alcohol, etc. In this grade are organized Little Mothers' Leagues, by means of which special instruction should be given to girls concerning the care of babies. This course of instruction covers such things as proper feeding, bathing, clothing—including kind and quality of material, and making of layettes—making the baby's bed and guarding his sleep, practice in dressing a big doll, and so on.

The ninth grade sees these pupils either completing the junior high school or, in those communities that are still working on the eight-year elementary and four-year high-school plan, entering the high school. It is a time for reviewing and emphasizing the various factors of personal hygiene, and for putting great emphasis on the health factors of industries, not only to show forth the dangers of different industries, but to help pupils to understand the type and amount of protection against industrial dangers and accidents, to which they are entitled from employers. A repetition of projects and discussions regarding tuberculosis is most desirable, emphasis this time being put less upon the personal side and more upon the relation of this disease to community life.

Projects and general discussions, either in the health course or in some of the sciences, preferably biology, should be devised for bringing out the essential relations between medical research and human progress. The opportunities for live discussion here are unlimited.

In the elementary schools, the following is the least allotment of time essential for the various phases of a school health program:

Recess .....150 min. per wk.
Physical education .... 90 min. per wk.
Hygiene and physiology. 60 min. per wk.

In those schools operating on the eight and four plan, this allotment of time should persist through the seventh and eighth grades also.

Secondary Schools

In secondary schools, the time allotment should be at least three periods per week. An hour per day is much better. In the former case, two periods are used for physical education, as has been the custom for years in those communities that have carried on physical education in secondary-school gymnasiums. The third period is taken for teaching hygiene and physiology through formal classroom work, discussions, debates, news items, organization of health clubs, and so on. In the ninth grade this work might be made a part of the courses in general science. In grades above the ninth, subjects from which this time is taken must rest in the discretion of the principal or superintendent. It may be advisable to take a part of it from each of several subjects. When five periods a week are available, three or four of these may be used for physical activities, and the balance of the time for hygiene.

Such a course in health training and instruction as has been sketched cannot be planted upon a school system immediately. It is the growth of years. There is needed first a building of ideals on the part of school officials and public so that they may insist upon children receiving the advantages of such a course. It is necessary, too, to train teachers, both those in the normal schools and those already in service, so that they may be better fitted to do this thing. A third essential is the gathering together of a mass of material, projects, and information, supplemented by modernized textbooks, which shall make it possible to carry out such a course. Only then may we even approximately arrive at the standard set by Herbert Spencer who said that "true education is training for complete living."

Introducing Occupations Into School Subjects*

Suggested lesson plans prepared by experienced high-school teachers for inculcating practical information concerning vocations into the scheduled outline of certain traditional courses

By HARRY D. KITSON, Professor of Education, Teachers College, Columbia University

DESPITE its manifest advantages, certain school administrators do not feel justified in including in the curriculum a special course devoted to occupations. Either they do not have teachers who are acquainted with and sympathetic with vocational problems, or they think they do not have time that can be devoted to the subject. As a second-best alternative some schools are endeavoring to give the needed information through subjects already in the curriculum. The subject that was first used for this purpose was English. Hundreds of teachers of this subject are using it as a means of leading boys and girls to think about vocations and inform themselves about them. They assign topics for themes such as, "My Idea of a Successful Person." "How I Earned a Dollar," "The Vocation I Want to Follow," "Some New Vocations," or "The College I Have Chosen."

They assign readings in biographies which show how men have succeeded in certain vocations. They call attention in literature to the principles underlying vocational success and try to point lesson from failures depicted in literature.[1]

Civics as a Vehicle for Occupations

Another school subject that has been much used as a vehicle for the dissemination of information about vocations is civics. As soon as civics ceased being the study of the Constitution of the United States and became a study of community life, it naturally led to the study of the industries and occupations. Accordingly, it has developed in many schools into a veritable course in occupations. The interest in this development has been enhanced by the publication of several books that teachers find useful as texts.[2]

English and civics, however, are not the only subjects through which information about occupations may be imparted. Every subject of the curriculum may be so used. Geography, history, chemistry, Latin, algebra, all can serve this practical end. In order to illustrate this several lesson plans will be given that have been prepared by expert teachers of certain traditional school subjects:

Introduction to the Occupation of Stage Electrician Through the Study of Physics

(Prepared by Katherine Woodruff)

The lesson is on the subject of light. The class has just witnessed and discussed a demonstration showing that by mixing yellow and blue pigments, a green color is obtained, and by casting a yellow light and a blue light at the same point on a white screen, white will be the resultant color. The demonstration is sufficiently spectacular to convince them that whoever uses colors well must understand the controlling physical laws.

Lights as a factor in play production are discussed. The common use of lights to change the color of actresses' dresses; the more advanced lighting effects that create falling snow, lightning, etc., on films are mentioned.

Duties of the stage electrician.

Opportunities, as an illustration of the possibilities is cited the work of Maude Adams at the Western Electric Company and her success, under the tutelage of Steinmetz, in the field of stage lighting.

Giving Information About the Occupations in Which a Printer Might Engage Through Arithmetic

(Prepared by R. W. Bullock)

1. Charles Spencer is a journeyman lithographer. What is the difference between the amount of money he earns and the amount that Robert Young, who is a finished copper plate pressman

*The concluding article of the series on vocational guidance by Prof. Kitson. The two previous articles appeared in the January and February issues.

[1] For a thorough treatment of such adaptions that may be made of courses in English the reader is referred to "Vocational and Moral Guidance," by Jesse B. Davis (Ginn and Company, Boston).

[2] "Vocational Civics," by Giles and Giles, and "Making a Living," by Lyon (The Macmillan Company, New York).

(journeyman), earns? (Both men working fourteen months.)

2. If the amount earned by each man during one year were placed in the bank for two years at three and one-half per cent interest, what would be the amount of principal and interest that each man would have at the end of the twenty-four months?

3. How much does Andrew Jones, who is an electrotyper foreman, receiving the minimum foreman's wage, earn during a period of eight months?

4. What is the difference between the amount that Andrew Jones earns in eight months and the amount that Carl Wilson, who is a stereotyper foreman, would earn during the same length of time?

5. Walter Miller is a journeyman in the press room. Charlie Kyle is an apprentice in the press room. What is the difference between the amount of money that Walter earns in nine months and the amount that Charlie earns within the same length of time?

Base all figures on the wages paid in the printing trades in the City of Indianapolis. Read: *Indianapolis Vocational Guidance Series—No. VI.*

Introduction to the Vocation of Banker Through the Study of Bookkeeping

(Prepared by Williette R. Myers)

Aim: To inspire the pupil to prepare himself to enter a bank. To inspire him to continue his study of accountancy at evening school during his apprenticeship in a bank.

Method used:

1. Frequent reference to the similarity between school work in debits and credits and actual work in a bank.

2. Emphasis on neatness as an essential to good banking.

3. Study of local bank financial statements found in newspapers.

4. Addresses by different bank cashiers to the class on:

   a. Banking as a profession.
   b. Possibilities of promotion in the profession.
   c. Negotiable instruments.
   d. Opportunities of study in evening school or by correspondence.

5. A special honor given to the student in the class whose whole set of books for the semester is judged to be the best by a committee of local bankers.

6. Apprenticeship during high-school course in the local banks for an hour or two each day, even without remuneration.

Introduction to the Vocation of Nurse Through a Course in European History

(Prepared by Concha R. James)

Introduction: The class is studying the Crimean War as an incident in the Near East tangle, and is led to consider the important and unique role played by Florence Nightingale in the relief of the wounded soldiers.

Discuss the personality, training, and background of Florence Nightingale, her pioneer work, etc. Request a volunteer to look up more facts about Florence Nightingale, and others to find out about the work of other well-known nurses.

Ask the class to enumerate the different kinds of nurses such as private duty, public health, hospital, visiting, school, etc.

Opportunities for advancement, earnings, etc.

Readings:

Adams, Elizabeth K.—Chapter V. *Women Professional Workers, New York.* The Macmillan Company, New York, 1921.

Cook, Sir Edward.—*Life of Florence Nightingale.* The Macmillan Company, London, 1914. 2 vols.

Stewart, Isabel M.—*Opportunities in the Field of Nursing.* National League for Nursing Education, New York.

Presenting the Occupations of Lawyer and Court Stenographer Through a Class in Hygiene.

(Prepared by Ruth Baity)

A class in hygiene in a junior high school, having studied personal and community hygiene, organized itself into a health court under the direction of the teacher.

Once a week court was held before which a committee representing the health board presented cases resulting from some lack of co-operation in respecting the health code of the school.

Pupils took turns in serving in different offices. As a result many inquiries were made as to the necessary training for lawyer and court stenographer.

Discussions as to the necessity of pursuing a high-school and college course for any profession. Facts about special schools of law, length of course, length of time in establishing profession, and different fields for lawyers.

As may be seen in these examples, several methods may be employed in introducing the vocations. The teacher may select one vocation and make a number of applications of the subject-matter to it, or he may take one fact or principle of the subject-matter and show its relation to sev-

eral vocations. He may study one vocation intensely over a period of several days, or he may touch lightly a number of vocations in one lesson. One teacher may desire to begin a course by showing the vocational implications in the subject; another may prefer to close the course in that way. For the most part it is likely that the teacher will desire to discuss vocations whenever they can be introduced spontaneously and naturally.

In carrying out this method of instruction the teacher should make thorough preparation; should inform himself about vocations by reading and by visiting places of employment. He should fairly saturate himself with facts about vocations that are most closely related to his teaching subject. Let him make a list of occupations in which his subject is used importantly, together with appropriate readings. Many teaching materials can be procured without cost from manufacturing concerns.[3]

Interest Pupils in Certain Vocations

As a result of such instruction certain pupils will become deeply interested in particular vocations. Provision may be made for the enhancement of this interest through individual investigations. These investigations might proceed along the lines of the following outline:

1. How is the occupation important for the welfare of society?
2. What kind of tasks does the worker perform?
3. What are the advantages of following this occupation?
4. What are the disadvantages and problems?
5. How can a person prepare for this calling?
6. What other qualities or characteristics must he have?
7. What income may be expected?
8. Does the occupation help the worker to live a good life as a citizen and as a private individual?

In the performance of these investigations the pupil may be directed by the vocational counsellor of the school; if there is no counsellor especially appointed the teacher should give the needed direction.

This idea that the subject-matter courses should be used as a means of giving enlightenment and inspiration toward planning one's career is not new. Certain highly skilled and humanistically-minded teachers have ever sought to present their subjects in the light of their relation to everyday life. Many a teacher of physics has aroused his pupils to the possibilities of a life-work in the field of electricity or that of mechanical engineering; many a teacher of botany has given his pupils an entrancing view of agriculture as a life work. Such teachers are, however, all too rare. Too many teachers regard their chief duty as that of teaching subject-matter, with little reference to the boy or girl to whom it is being taught. A large number of teachers and administrators are afraid to make any variation in the presentation of sacred subject-matter lest they be found derelict in their duty. For the benefit of such, we shall point out the advantages to be derived from using this technique.

First is the obvious one that pupils obtain information about new and interesting vocations. They learn that there is something to do in the world besides being a physician, lawyer, or teacher. Not only do they learn about new vocations, but they also become interested in some of them as worthy occupations that they might follow. One of the chief ends of education, according to the modern view concerning the junior high school, is the development within each individual of vocational interests. The way to develop these is to give knowledge and experiences. At least the knowledge can be given in the way here advocated.

Method Also Aids Regular Course

In addition to receiving specific help in choosing a vocation, the pupils will learn more about the subject being taught. When they see the subject not as a collection of dry detached facts, but as matters that relate directly to the everyday life of men and women, they will study harder and learn more. Teachers are much concerned to-day over devices for "motivating" pupils. Here is a motivating idea—the life-career motive—which is not artificial but is one of the most important phases of life. The wise teacher can make good use of it in performing her dual task of making pupils learn and preparing them for life.

Attention might also be called to the ease with which this method of instruction lends itself to the use of the "project method." Any teacher who desires to use projects can find them in abundance in the field of vocations.

In passing we might call attention to the fact that by giving a practical and vocational flavor to the course, a teacher of a subject that is frowned on as being "impractical" can make his subject practical. Every course in the curriculum is subjected to strain from two forces that pull in opposite directions. On the one hand are the advocates of an extremely "cultural" curriculum,

[3] For such a list see "Occupational Information in the Elementary School," by McCracken and Lamb (Houghton Mifflin Co., Boston).

on the other, those who desire it to be "practical." Every subject that maintains a place in the curriculum must placate these two forces. Teachers of subjects that are being hard pressed by the "practical-minded" may employ this method with especial benefit.

It should be clearly understood that we are not pleading here that all education should be "practical" or "vocational." We are merely insisting that school teachers and administrators recognize the fact that boys and girls in school will soon be obliged to choose vocations and plan their careers, and we are asking that the schools use every agency in their power to assist in this difficult undertaking. The curriculum is one of the agencies through which some help can be given. And we are asking that it be made to serve this function.

Integrating School and Community Life

Public school officials are frequently heard to profess that they desire to integrate the school with the life of the community; unite its activities with those of the community; and enlist the citizens in the work of the school. They can materially advance these aims by adopting this plan of giving vocational information and inspiration through the subjects of the curriculum. In making vocational applications of subject-matter the teacher will be obliged to call on many agencies and individuals in the community for help and will form many connecting bonds between school and non-school forces in the community.

We have advocated one simple principle; namely, the school should fulfill the functions of vocational guidance, and in doing so it should give information about vocations. We have presented several means through which this can be done. The most desirable is a separate course in occupations. Subsidiary devices, are—speakers representing the various occupations, field trips, exploratory courses, extra-curricular activities, supervised wage-earning, adaptation of subject-matter courses. To use these devices will not involve much disruption of present forms of organization. They are all recognized as valuable adjuncts to any educational program. They only demand that the school give information. This is traditionally recognized as one of the aims of education.

According to more modern theory, education should also prepare for life. Choosing and preparing for a vocation are surely vital parts of life. It is on these grounds that the ideas here presented and the methods here proposed lay claim to serious consideration by every modern educator.

Help from the Parent-Teacher Association

"A principal of a small high school in New York State, who has had a parent-teacher association for three years, has found it of great assistance in building up his school," according to E. N. Ferris, in *Bureau of Education Bulletin No. 10.* "This association has a program committee of three, one of whom is always the principal or a teacher of the school. At the beginning of each year this committee meets and makes out its program for the year, utilizing as far as possible suggestions obtained from its members. Its topics for study are such as concern the school and its community. In the main, the discussions are led by members of the association. Occasionally the association invites in a speaker from the outside to discuss a special topic.

"In the three years it has brought about co-operation between the school and the home in matters of health, attendance, and home study. It has taken over the guidance and chaperonage of social functions for high-school pupils; it has done much to build up a community school spirit; and has assumed responsibility largely for the management and financial support of a school fair at which all phases of the school's work are exhibited. One of its important functions has been the promotion of a better understanding on the part of school patrons of modern methods of teaching reading, arithmetic, construction work, etc., in the elementary grades as these have been presented by teachers and discussed in the association meetings," he states.

Promotes Co-operation

"In a consolidated school in Mississippi, enrolling 250 pupils, seventy-five of them being in the high school, the principal, who is also the teacher of vocational agriculture, has found his parent-teacher association of great help. He has brought about in his community, through the parent-teacher association, co-operation among the school board, the teachers, the patrons, the county agent, and the county nurse. Through the association, with the help of the county nurse, he has carried on a community health campaign. This campaign was begun by talks with the individual teachers, then in teachers' meetings and parent-teacher meetings where the desirability of good health as a prerequisite of good school work was stressed.

"The parent-teacher organization was recognized by the principal as being an agent especially helpful in educating the public with respect to the program of the school and in winning support for that program."

Erecting an Intermediate Type School on the Unit Plan

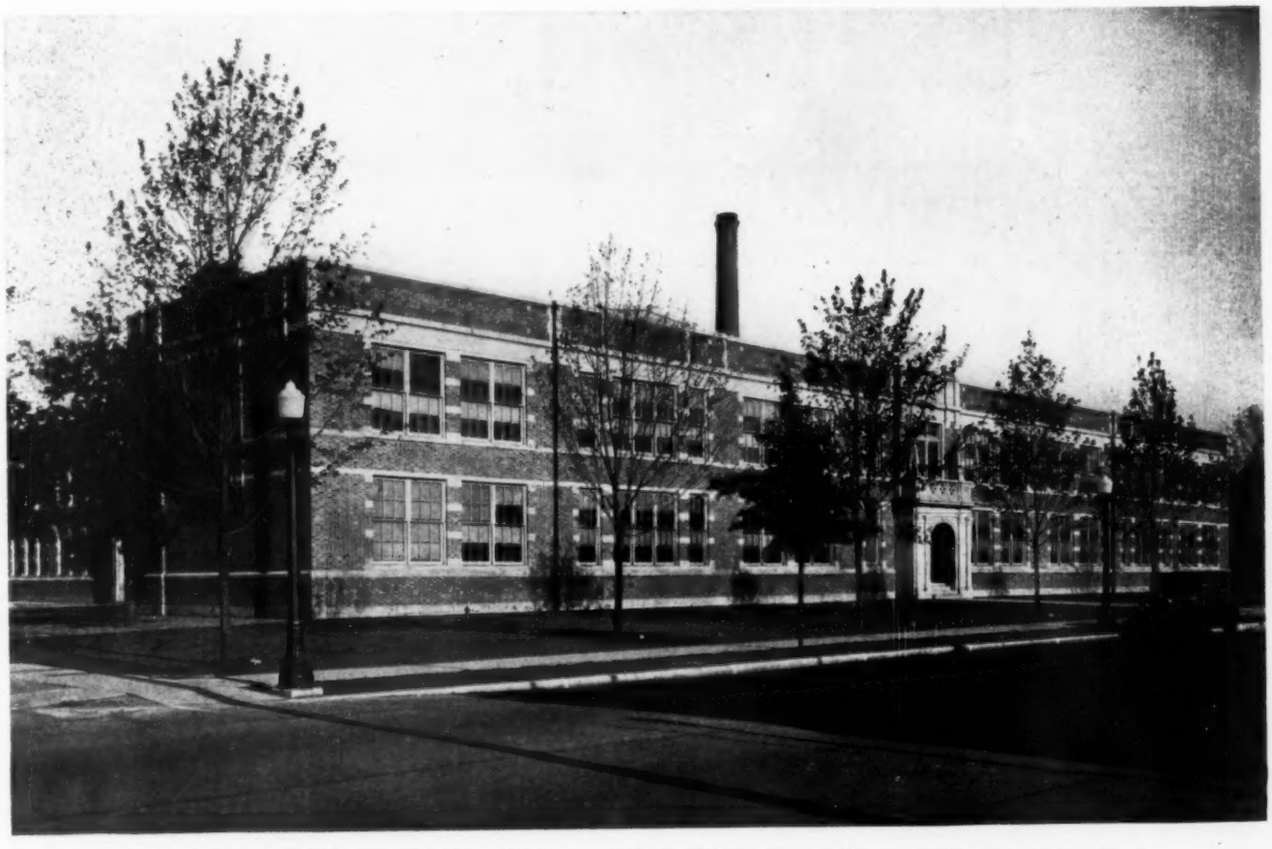
To relieve congestion in the senior high school this forward-looking plan was adopted to accommodate a pupil population that increases 250 pupils each year

By L. L. TYLER, Superintendent of Schools, Muskegon Heights, Mich.

THE Central School of Muskegon Heights, Michigan, was projected as a combined elementary and intermediate type of school to relieve congestion in four grade buildings and to permit the removal of the lower grades of the senior high school which was being operated as a six-year type. It was proposed to erect the building on a unit plan omitting that part of the classroom structure south of the two east and west entrances respectively.

Later, it was found that the Peck Street portion could be completed with a small additional bond issue. Consequently, that plan was carried out, a new contract being awarded for this portion of the work. The chief general virtues of the building worthy of special comment are its compactness, the convenient approaches of special rooms, and their interrelation. Among the special features a few are selected for more detailed description.

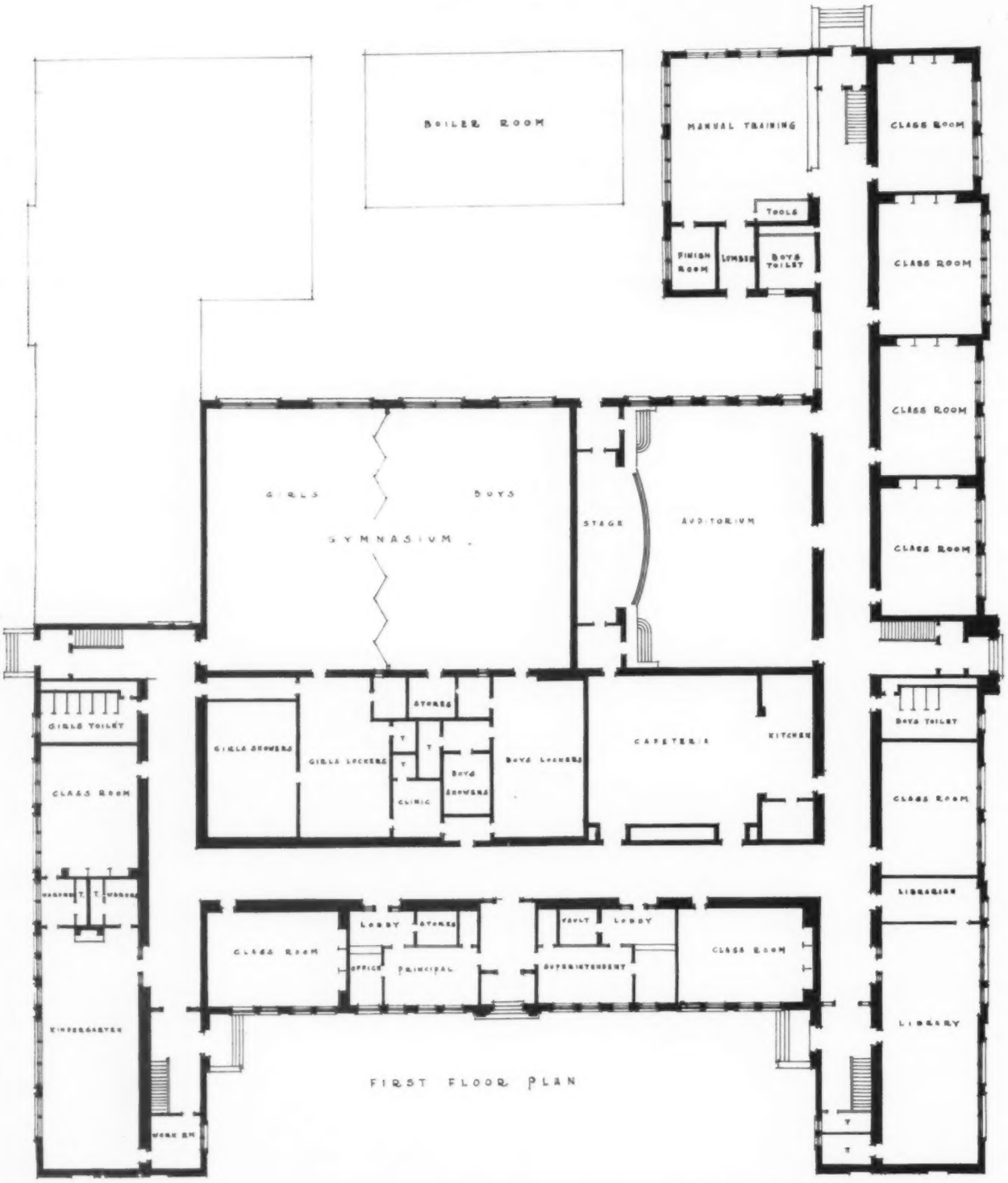
The interplay between the first grade and kindergarten has been worked out so that they are enabled to use the same sanitary facilities and play space. The gymnasium is large enough to afford two gymnasiums of sufficient size for regular work, each connected with its own suite of accessory rooms. The auditorium is used for class work although it is fully equipped for wider use. The cafeteria is very conveniently located and is associated with the auditorium in many



Central School, Muskegon Heights, Mich., erected to relieve congestion to grade and high school.

community affairs. A convenient library is on the first floor. This is used for study room and library purposes, and it also makes an excellent place for teachers' extension classes. On the second floor a large study room is provided, which is so appointed as to light, heat, and ventilation that at any time, by means of a tile partition, two extra standard classrooms may be readily created.

As to construction, the building is of a reinforced concrete, skeleton type, with brick and tile curtain walls. All interior partitions are of gypsum block. Floors are covered with battleship linoleum laid on the concrete. Corridors have the same covering with terrazzo borders. Lockers



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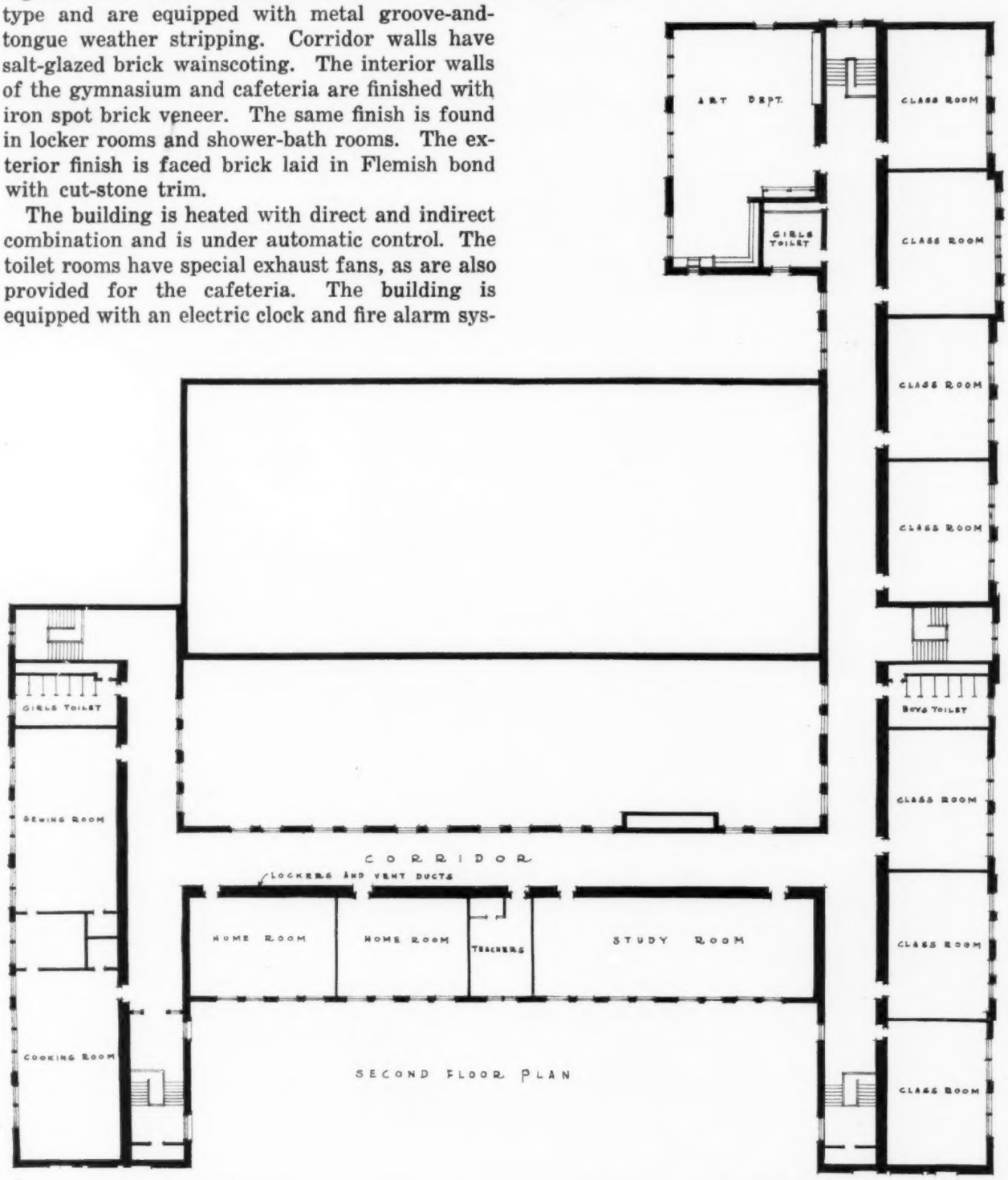
First floor plan, Central School, Muskegon Heights, Mich.

are recessed in the corridors. They are commodious, being twelve by fifteen inches.

In the rooms used by the elementary grades, ventilated wardrobes are installed. All stairways are reinforced concrete with treads, risers, and balustrades finished in terrazzo. Anti-slip tiles of a carborundum composition are set in the nosings of the treads. Windows are of the austral type and are equipped with metal groove-and-tongue weather stripping. Corridor walls have salt-glazed brick wainscoting. The interior walls of the gymnasium and cafeteria are finished with iron spot brick veneer. The same finish is found in locker rooms and shower-bath rooms. The exterior finish is faced brick laid in Flemish bond with cut-stone trim.

The building is heated with direct and indirect combination and is under automatic control. The toilet rooms have special exhaust fans, as are also provided for the cafeteria. The building is equipped with an electric clock and fire alarm system, and also has intercommunicating telephones of the dial type.

The building is well adapted to a work-play-study program but will eventually develop into a full junior high-school plant with the rapid growth of the city. This growth has amounted to an addition of 250 pupils per year for the past ten years.



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Second floor plan, Central School, Muskegon Heights, Mich.

Examination of Pupils Is a Sound Economic Procedure

Teaching Teachers How to Teach Health

As an example of good health to her pupils, the teacher must know what health means and also the procedures by which it may be obtained

By A. O. DeWEESE, M. D., Director of Health, Kent State Normal College, Kent, Ohio.

THE most vital link in the chain of public health teaching is quite often neglected. The classroom teacher who is in daily contact with the child is a determining factor in not only the status of health and physical fitness of the men and women of to-morrow, but a vital factor in the attitude that the next generation of parents will take toward a rational health program. As yet, in many schools with many hundreds of children, she represents the entire health program. In other school systems with an expensive and well-organized health program, she holds the key to the efficiency of the health activities. If she is not trained and educated so that she intelligently, sympathetically, and enthusiastically fits into the program of medical inspection and health service, the efficiency of the system must be retarded. The student health department of a teacher-training institution, therefore, has a distinctive and responsible service to perform.

Basis of Organization

The student health service of the Kent State Normal College, Kent, Ohio, is organized upon the three following assumptions:

1. That educationally it is now generally recognized that health is a fundamental factor in training and preparation for citizenship, since the health of the boy and girl materially determines endurance, disposition, and attitude, and endurance, disposition, and attitude vitally affect happiness and efficiency.

2. That in the training and preparation for citizenship the school is as much responsible for the preservation and protection of the child's health and the development of his physical efficiency and well-being as it is in the guidance and training of his mental attainments.

3. That an abundance of radiating health and physical well-being is of more importance to the classroom teacher than in an individual in any other profession, since an example in well-being is an incentive of greatest importance in health education, and an unhealthy teacher cannot be in complete sympathy with the attitude and disposition of live, healthy, outdoor-minded boys and girls.

Proceeding upon these assumptions the health service may be broadly outlined under four divisions:

1. Along with the subject matter and general ability tests administered on entrance, a complete medical examination is given. The record of this examination is made an integral part of the student's entrance records along with his scholastic record.

2. Students with gross corrective or remediable defects, or students whose physical condition is below the standards set by reputable insurance companies for an "A" grade rating are given a failing grade. In extreme cases they are sent from school. In others they are persuaded to leave school until their condition is improved, and in others, to change their choice of profession to some occupation in which their physical condition will not be such a handicap. Those who cannot be persuaded are placed in corrective and hospital physical education classes, given frequent physical examinations, and if their condition is not corrected still given a failing health grade with a final recommendation of physical unfitness for the teaching profession.

Regular Office Hours

3. Regular hours are kept in the main college building by the nurse and physician for consultation, health advice, and dispensary treatment. The hours are from 10:00 to 12:00 A.M., and 2:00 to 5:00 P.M. A part of one of the dormitories affords general hospital care.

4. To develop "out-door mindedness" and an enthusiastic interest in out-door sports, a program of competitive inter-class activities in soccer, archery, field ball, hockey, baseball, scouting, hiking, etc., is maintained. For a satisfactory record in these activities the college letter is awarded.

DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION

KENT STATE NORMAL COLLEGE
Score Sheet For Health Conditions

Name _____ Points Credit Date

1	Weight and Height. Weight (____), height (____) within ten % of the average, 25; within 10 % of ideal, 45. ____	45 points.	
2	Pulse. (____) 50 to 90(____), 2; increasing on hopping 50 times (____), if no more than 130, 2; returns to normal within two minutes (____), 2; heart beats regular (____), 4.	10 points.	
3	Blood Pressure. Systolic (____); Diastolic (____); if within 12% of the standard for your age, 10 and diastolic within 50 mm of systolic, 10.	20 points.	
4	Hearing. R. (____); L. (____); 25-25 for each ear, 8. Free from impacted cerumen (____), 2.	10 points.	
5	Vision Without Glasses. R. (____), L. (____). No muscular imbalance (cross eyes), (____), 2; no astigmatism (____), 2. Vision for both eyes 20-20 or better, 20 points. Vision with glasses, R. (____), L.(____). If above points are fully corrected full credit given. 20.	25 points.	
6	Urine. Specific gravity (____); sugar (____); albumin (____). If negative and specific gravity between 1.010 and 1.030	15 points.	
7	Blood. Test for hemoglobin (____). If above 80,	5 points.	
8	Lung capacity. Vital breathing capacity (____); at least 160 cmm for ladies and 220 for men.	5 points.	
9	Eyes. No inflammation or congestion of conjunctiva (____); 3; no crusted or scaly lids (____), 5; cornea clear with no scars (____), 2; reflexes for light and distance normal (____), 5.	15 points.	
10	Nose. Neither nostril obstructed (____), 5; no catarrhal condition of nose or sinuses (____), 10.	15 points.	
11	Teeth. None missing except wisdom teeth or if missing properly replaced (____), 3; none devitalized (____), 5; no cavities unfilled (____), 4; regular with good occlusion (____), 4; gum firm and adherent to teeth, no pyorrhea (____), 4; no narrow arch or high palate (____), 5. If devitalized teeth are checked by Xray examination, full credit given.	25 points.	
12	Muscular system, good strength of grip, ladies at least 30 units on dynamoter; men, 40 units (____), 5. Able to stand erect with feet together and eyes shut for one minute (____), 5.	10 points.	
13	Throat. Pharynx free from inflammation (____), 5; tonsils not enlarged or diseased (____), 20; no adenoid growth (____), 5.	30 points.	
14	Feces. A bowel movement normal and regular daily without the use of drugs (____), 5.	5 points.	
15	Posture. Mobility of chest, of spine, of all joints (____), 3. Front of ear, point of shoulder, hips, knees and forward part of foot on straight line (____), 9; no lateral curvature, no dorso-ventral curvature, with shoulders even (____), 4; no winged scapula (____), 2; no protuberant or flat abdomen (____), 2.	20 points.	
16	Nutrition. Skin clear without eruption (____), 1; skin moist, smooth and firm but elastic (____), 1; lips and nails and mucosa of eyes healthy pink (____), 1; hair soft and glossy, even and free from dandruff (____), 1; skin under eyes smooth and clear (____), 1	5 points.	
17	Superficial glands. No tenderness or enlargment of cervical, axillary, inguinal or epitrochlear glands (____), 10; no lumps in breasts or abnormal enlargment of thyroid (____), 10.	20 points.	
18	Chest. Even and regular excursion of chest on inspiration (____), 3; no depression or prominences (____), 7; no rales or abnormal sounds (____), 5; chest measurement in forced expiration (____) inches; forced inspiration (____) inches. If three inches or more (____), 5.	20 points.	
19	Abdomen. Circumference at navel (____) inches. If less than chest on forced expiration (____), 5; no hernia (____), 2; no operation scars (____), 2; no unusual tenderness or masses anywhere (____), 12; liver margins and palpable organs normal (____), 4.	25 points.	
20	Legs and feet. No enlarged veins (varicosities) (____), 5; arches not weak or fallen (____), 10; inside line straight no deformities from crowding (____), 3; no bunions or calluses (____), 2.	15 points.	
21	Heart. Apex beat inside nipple line (____), 5; no murmurs or thrills with beats regular (____), 15.	20 points.	
22	Immunizations against disease. Smallpox (____), 3; typhoid (____), 1; diptheria (____), 1; scarlet fever (____), 1.	6 points.	
23	Miscellaneous. Abdominal and creamasteric, patellar and ankle clonus reflexes normal; Babinski and Rhomberg test negative; genitalia, vaginal and rectal examination negative; hyperthesia and test negative. (____).	15 points.	
24	Clinical history and medical examination negative, 20.	20 points.	
	Total score	400 points.	
	Percentage of Efficiency (Total score divided by 4)	100 %	

Possible increase in points _____

Instructions

This appraisal of your physical efficiency is made to determine your health grade for the college records, and to help you improve your physical condition. Any time that you think you have improved your health grade, bring your record back for consultation with the college physician.

Form provided by the health service, Kent State Normal College, Kent, Ohio, for recording results of physical examinations of students.

In addition the students are in the gymnasium an hour each for two days a week and in the swimming pool one hour one day a week. In these activities they are, and feel that they are, under the scrutiny of the health department. We know of no other way to prepare the teacher to be a leader of live, healthy boys and girls, and give them an understanding and sympathy with normal children.

4. Since a scientific attitude toward life in general and health in particular cannot be developed without some scientific background, the basic sciences are major requirements in the course of study. In the three-year courses for elementary teachers, one year and two quarters, or fifteen term-hours, are required in biology; one year, or nine term-hours, in physics or chemistry; two quarters, or six term-hours, in geography; and eight term-hours are required in psychology. Into this scientific background of thirty-eight hours, is builded one quarter, or three term-hours, of physiology and one quarter, or three term-hours, of child hygiene. In the four-year degree courses, one year, or nine term-hours, are required in biology; one year, or nine term-hours, in physics or chemistry; two quarters, or six term-hours, in geology; and one year, or nine term-hours are required in psychology. Into this scientific background of thirty-three hours is builded two quarters, or six term-hours, of advanced physiology, and one quarter, or three term-hours, of hygiene.

Outstanding Distinction of Service

Through the activity of these four divisions of the student health service is developed the only distinctive personality to which we might lay claim. Briefly stated, it is that the student is ever conscious of the fact that man's progress in civilization has been mainly made by discovering natural laws and then respecting, obeying, and working in harmony with those natural laws, and that disobedience or neglect of this procedure always brings stagnation, lack of development, or destruction; that the intelligent individual spends some time in discovering the natural laws that operate in the normal growth and healthy development of the human protoplasmic cells, and

when those laws are discovered, respects, obeys, and works in harmony with those laws; and that disobedience or neglect of this procedure brings personal deterioration, degeneration, or destruction and furthermore it brings deterioration and degeneration and ultimately destruction to the race.

The seeds of this personality are sown during "Freshman Week." At this time the health department concentrates all of its energy upon meeting the freshman student body in small groups for consultation and discussion. No physical examinations are given during this time. The accompanying score sheet for health habits is carefully gone over with the student and he is asked to score himself in accordance with the way he has been living. This gives him a means of personal comparison to determine whether or not he has been obeying and respecting the natural laws operating for his normal growth and healthy development.

At the same time he is shown how to adjust himself to his new college experience so as to conform to the natural laws that govern his organic being. At the end of the year, he is again given his score sheet and asked to score himself, noting any improvement. Since this is entirely a subjective procedure, the score is not entered on his permanent college record.

Score Sheet for Habits

On the reverse of the sheet is the score sheet for health conditions that becomes the student's grade in health and becomes a part of the student's permanent record. It is open to criticism in that the points given in some items are out of proportion and an accurate grade of the real health condition is not determinable. For instance, what basis have we for determining that an average weight is worth twenty-five points, an ideal weight forty-five points, while a normal blood pressure is worth twenty points. But we have kept in mind that if a student is to be stimulated to improve his physical condition, more

SCORE SHEET FOR HEALTH HABITS

	Points	Credit	Date
1 Correction or Removal of Defects. Consult dentist once or twice per year, 2; secure artificial immunity from contagious diseases, 2; have a health examination on your birthday or at least once per year, 2; take medicine only on dependable medical advice, 2; maintain social purity and avoid sex perversions, 2; make conscious effort to correct your defects, 5; make a conscious effort to protect yourself against inheritable tendencies, 5. ---------- 20 points.	------	------	------
2 Regularity (Regularity is a fundamental law of nature). Go to bed and arise regularly by the clock, 3; eat three meals a day regularly by the clock, 2; have a definite daily program which you keep consistently with 9 to 10 hours for sleep, 8 to 10 hours for study, recitation and reading, 2 to 3 hours for eating and 3 to 4 hours for exercise and recreation, 3; rest from regular work one day per week but devote either Saturday or Sunday to regular study program, 1; regular time for daily bowel movement, 1. ---------- 10 points.	------	------	------
3 Plenty of Fresh Air and Sunshine. Devote a major portion of your time for recreation and exercise in the open air and sunshine, 1; wear your clothing loose so that there is free circulation of air about the skin surface, 1; wear low heel shoes longer and wider than the foot, except upon dress occasions, with well fitting :' kings so that air may get to all parts of the foot, 1; maintain a healthy tan, 1; sleep with windows open, 1; wear loose, hygienic nig. clothing, 1; use mattress (no feather bed), 1; use only small pillow, 1; have sufficient but not excessive bed clothing, 1. ---------- 9 points	------	------	------
4 Proper Food. Unless you are doing strenuous muscular work, eat the following diet: Group I—Milk. Not less than a pint and preferably a quart per day, 2. Group II—Vegetables. Two per day besides potatoes, one a leafy vegetable, 4. Group III—Cereals. Some cereals each day, 2. Group IV—Fruit. Some fruit each day, preferably raw fruit, 1. Group V—Fats. Bread and butter daily, 2. Group VI—Meats, eggs, cheese and nuts. In very small quantities and never more than one food from the entire group once per day, 4. Group VII—Sugar Foods. Sugar foods including candy and sweet drinks at the end of meals only, 4. Chew food thoroughly, 1. ---------- 20 points.	------	------	------
5 Plenty of Water Inside and Out. Drink 6 to 8 glasses of water daily, 1; do not wait to get thirsty to drink, 1; drink a glass of water or an unsweetened drink only when hungry between meals, 1; drink a glass of water on arising and retiring, 1; take a cold bath on arising unless ill or a warm cleansing bath was taken on retiring, 1; take warm shower followed by cold shower after exercising, 1; dry thoroughly with brisk rubbing using individual towel, and spending as much time in drying as you did in bathing, 1; use tooth brush for two minutes night and morning, 1; brush scalp with clean brush each morning, 1; keep hair and scalp clean, 1; keep nails clean, 1. ---------- 11 points.	------	------	------
6 Sufficient Rest and Exercise. Sleep 8 to 9 hours in accordance with type of nervous system, 4; complete relaxation in rest or sleep for one hour during middle of the day, 3; rest for few minutes after a hearty meal, 1; take enough vigorous exercise to prevent insomnia, 1; secure at least one hour of sweat inducing exercise daily, 2; exercise lightly for few minutes before dressing in the morning, 1; develop wholesome tastes in recreation, 1; avoid excess or deficiency of amusements, 1; develop some outdoor "hobby", hiking, tennis, golfing, nature study, etc., 1. ---------- 15 points.	------	------	------
7 Free Elimination with Protection from Outside elements and A Healthy Relation and Adaptation to the Surrounding Environment. Have at least one free bowel movement daily without the use of drugs, 3; induce some sweating each day, 2; keep pores of the skin open by vigorous use of flesh brush, 1; frequent change of underclothing, 1; maintain a cheerful countenance, 1; control emotions and maintain mental poise, 1; never indulge in self pity, 1; become interested in many things, 1; practice courtesy and good manners, 1; seek to think well of everyone, 1; be clean and neat in appearance, walking and sitting as tall as possible with chin and abdomen drawn in, 1; wear light, loose clothing inside but protect body from sudden chilling on going outside, 1. ---------- 15 points	------	------	------
Total Score, and Efficiency Percentage of Health Habits ---------- 100 points	------	------	------

Instructions

This score is for your own convenience. Cross out the figure following each item in which you fail to come up to the standard. Add up the remaining figures in each group and grade yourself. Strive to improve your habits and at the end of the term score yourself again. Be free to consult with the college physician at any time.

The problem of developing strong, virile, happy and healthy young men and women is the same as developing strong, healthy plants and animals, viz:

1 Early correction or removal of defects.
2 Regularity of habits—eating, sleeping, eliminating, working and exercising.
3 Plenty of fresh air and sunshine.
4 Proper food.
5 Plenty of water inside and out.
6 Sufficient rest and exercise.
7 Free elimination with protection from our own secretions and outside elements and a healthy relation and adaptation to our environment.

Student's health habits score sheet for listing habits at beginning of term. Comparison is made throughout the school period.

points must be given for those defects that are correctible or remedial.

Therefore, an opportunity is given for the student to raise his grade by improvement in nutrition, repair of teeth, removal of foci of infection, correction of eye strain, etc. The student is given a copy of this appraisal of his physical condition and at any time that he feels he has improved himself, he brings it back to the college physician for consultation.

The regular standard form adopted by the American Medical Association for health examination is also a part of the student's record. It is used for subsequent and more careful examination of the student. We believe that such an examination is more important to the student teacher, and for that reason should be more carefully done. The personal value to be derived by the prospective teacher from such an examination is obviously the same as it would be for any other individual.

In addition, however, this health examination of the teacher has an added educational value. She must be informed and interested in a similar examination for her pupils and becomes the most important individual in the task of educating the general public in the value and importance of an annual health examination.

Needed Equipment Provided

The procedure, therefore, has an educational background, and must be done scientifically which demands scientific equipment. The Kent State Normal College is equipped with this end in view. In addition to the trial lens, we have the giant opthalmoscope, the giant retinascope, a phoroptor, and opthalmometer. A giant otoscope, tuning forks, trans-illuminating vaginal specula, proctoscope, and instruments for pelvic measurements, aid in the abdominal examination; a cardiograph aids in the heart examinations. A basal metabolator and an x-ray unit for fluoroscopic and radiography make up a part of the equipment. The laboratory is equipped with heamacytometers, electric hemoglobinometer, etc.

As routine, we x-ray all dead teeth and find a surprising number of foci of infection which have apparently not yet disturbed the student's physical condition. Impacted wisdom teeth are also found in a surprising number of cases.

In our dispensary treatment we also try to carry out the policy of educating the student as to what scientific medical treatment is. We know of no other way of protecting him and his educative potentiality from the cults and quackery. We use an ear, nose, and throat cabinet, violet ray on the underweights, infra-red ray therapeutic lamps and diathermy. We use these not only for the therapeutic value they might have but also to be in position to educate the teacher of their true value; that they are mere adjuncts in medical treatment and not mysterious "cure-alls" for all diseases.

In their child hygiene work, the student teachers are not only taught the significance of the various defects of childhood, and how they are recognized, but follow the procedure through the school clinic afforded by the medical inspection of the children in the training school.

Briefly this summarizes the activities of Kent State Normal College in attempting to train and educate the teacher so that she will intelligently, sympathetically, and enthusiastically fit into the program of medical inspection and health education.

The Purpose of the Junior High School

The establishment of junior high schools during recent years is in a sense a protest against our old lock-step twelve-year system. It has already done much to remedy some of the major evils of the traditional organization. However, one of the important purposes of the re-organization—economy of time—is in danger of being lost sight of. Unless the junior high-school movement results in the saving of time in the elementary and high-school program, it will have failed in one of its most important and necessary functions, accord-to George N. Child, superintendent of schools, Salt Lake City.

"An increasing number of high-school graduates go on to college. It is not the purpose to discuss the advisability of their going to college in such large numbers, but to call attention to the responsibility resting upon a public school system to get young people ready for college effectively and in the least time reasonably possible. Experience, both in America and abroad, is in favor of giving less time than twelve years to the necessary general preparation," he states.

"Pupils from school systems in America, organized on the eleven-year plan," he continues, "take their places in college on a par with those who come from systems under the twelve-year organization, according to the best information available. The explanation, which seems reasonable enough, is that all the necessary preparatory work for college can be well mastered by students in eleven years, and therefore that twelve years given to it result in either a slowing up of the learning process or in an encumbering of the courses of study with useless, unsuited material."

Improving School Attendance and Pupil Records

Using the newly discovered principle of retaining the ultra-violet rays of the sun, many schools throughout the world are discarding common glass for windows

By HOBART GAUTHIER, New York City

YOUNG AMERICA spends nearly one-third more time in school to-day than was the case thirty-five years ago and the welfare of every community is now, more than ever before, centered in its schools and natural lighting.

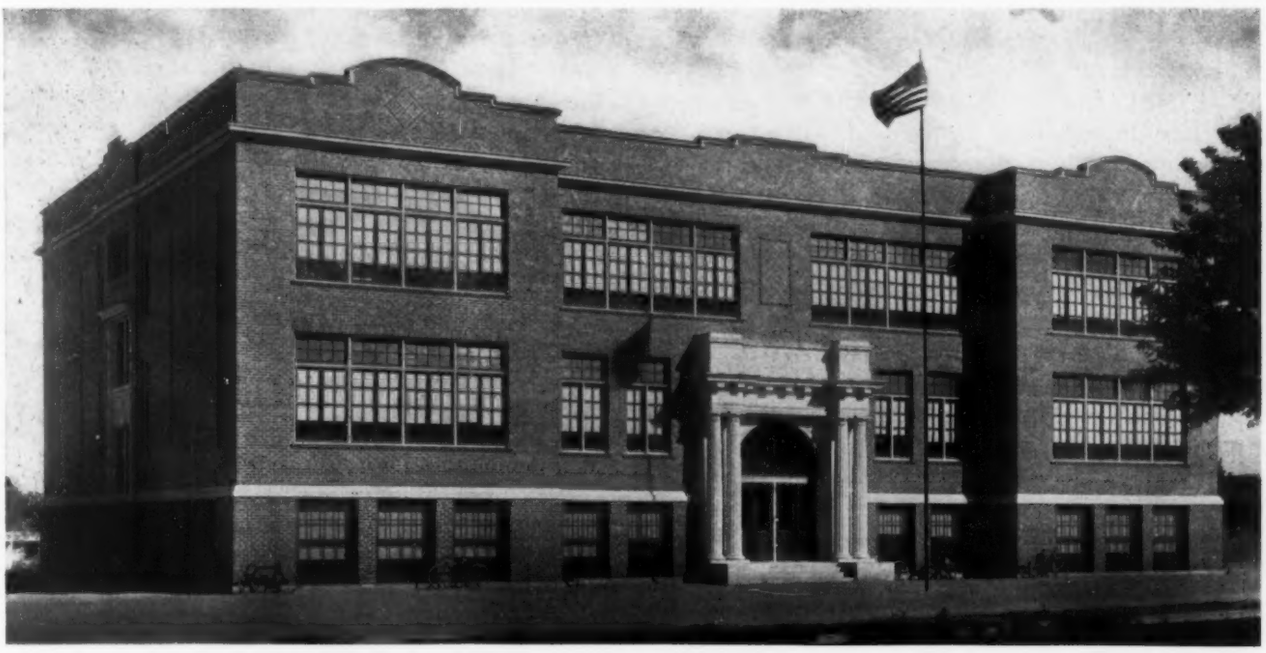
To appreciate fully the stride that science has made in the invention of that new type of window glass which is transparent to the rays of sunlight, it will perhaps be helpful to quote from an article, "New Light on Light," which appeared in *Housing Betterment* for July, 1927. Here Lawrence Veiller, secretary, the National Housing Association, places this new product of science in its proper perspective for the school official.

"That the age we live in is a marvelous one is indicated by nothing so much as the extraordinary new aspects with which we must regard what heretofore we have considered the fundamentals of our daily existence. A few years ago we were told that we must 'scrap' all of the accepted views of the science of ventilation and discard them utterly, and that contrary to what we had been taught for generations, good ventilation no longer concerned itself with such matters as cubic air capacity, carbon dioxide content, and similar factors, but that the fundamental considerations in what, for lack of a better term, we call 'ventilation,' were low temperature, moving air, and not too much moisture."

Now comes even more revolutionary ideas in the field of light.

If we may believe what we have recently been told as to the functions of the ultra-violet rays, newly discovered through scientific research, we are apparently on the eve of an era that promises to change not only our conditions of living, but even our whole industrial system.

Sunlight through the medium of this new ultra-violet ray transmitting glass is now being placed on the payrolls of business organizations. Here



Teller School, Denver, Colo., where tests of the ultra-violet ray glass are being conducted.

Children studying in a schoolroom glazed with the new glass.

its function is not an entirely altruistic one. It is, in fact, being used primarily to reduce payroll losses due to absenteeism caused by poor health.

Just recently the vice-president of a large New York bank, having installed this new type of glass in their offices, stated, "If the exigencies of business rob the men and women of natural physical advantages and if science perfects means of returning the stolen goods, it seems to us to be the duty of business to admit the fact and make amends by accepting the contributions of science. If we were to view this move solely as an investment, on which we merely expect a profitable return, we are confident that the windows of our new building would give us that return in a newly invigorated personnel and a lessened absentee list."

If business executives can thus look upon the advent of this new type of window glass, then it becomes increasingly obvious that school authorities as a whole, vested as they are with the wonderful opportunity of bringing up future generations with healthy bodies and trained minds, should consider most seriously its various uses.

The children in our crowded cities spend on an average, five hours a day, five days a week, the greater part of the year, indoors behind glass that cuts out entirely this element of sunlight so essential to normal growth and health.

The value of this type of glass has been pointed out in a test made by Dr. J. Bell Ferguson, health officer for Smethwick, England, who reports that after a nine months test, thirty boys from nine to eleven years of age (in a classroom glazed with this new type of glass) gained an average of 6.11 pounds in weight; grew an average of 1.86 inches in height, and showed an average gain of 16.14 per cent in hemoglobin content of the blood. On the other hand, thirty boys in the "control class"—under ordinary window glass—showed an average gain of only 2.83 pounds in weight; 1.52 inches in height, and 7.53 per cent gain in hemoglobin. Furthermore, Dr. Ferguson's report shows that absences decreased over forty per cent. Aside from indicating the better health of the pupils, it very obviously means greater effi-

ciency, for it is just as expensive to operate a school with many empty seats as it is with every seat occupied.

At the Teller School in Denver, Colo., Dr. A. L. Beaghler, medical director of the Denver schools, and Charles E. Greene, deputy superintendent, are conducting a test to determine precisely the value of this new type of glass in this school. The school is one of the city's newer buildings and was erected three years ago. It has a ventilation system which is efficient on one condition, which is that the windows must not be opened.

Investigations Now Under Way

It is apparent that this comparison of the new type of window glass with ordinary window glass should reveal some very interesting figures when completed. In a similar manner, under the general direction of Prof. Carlton Washburn, superintendent of schools, Winnetka, Ill., the relative difference of this new glass is being measured, and Dr. H. A. Orvis, medical officer of the Winnetka public schools, is undertaking a hemoglobin test with the permission of the children's parents. At the same time, the principal of the Horace Mann school is checking absences, colds, etc., among the pupils in the fifth-grade classroom of Edna Olson, which is the one room in this building equipped with the new glass.

Another test is being made in a school in Bronxville, N. Y. This is a community within commuting distance of New York City where 180 pupils in the first, second, and third grades are being carefully observed and records of the results made under the direction of W. W. Beatty, superintendent.

The tests mentioned are to ascertain, in as scientific a manner as possible, under varying conditions and in different climates, a definite measure of value of this new glass.

The argument has been raised among school-board building committees that the new window glass, while admittedly desirable and of considerable health value, is nevertheless, so costly when compared with ordinary window glass, as to seem somewhat of a luxury.

The actual results obtained in many types of tests and experiments, both by biologists and physicists, point to a contrary conclusion. For instance, hospitals report that children, during the convalescenf stage, show marked improvements within a very short time and without special medication. Its practical application is emphasized in the Smethwick test just mentioned and again in the instance of a London business office where the department with the poorest record of attendance, now with windows of this new glass, has the best record of all the departments.

Thus the new glass may also reduce the non-attendance record in schools. School children studying under these new ultra-violet ray transmitting windows are virtually exposed to the sun the greater portion of the day, which should mean naturally increased vitality and fewer colds and, as a result, less absentees.

Prof. John F. Bender of the University of Oklahoma, has been quoted as saying, "New York places the waste of money due to loss in school attendance at more than $13,000,000 a year."

He also states that in Kentucky at least a third of the state's school fund is wasted annually through non-attendance; in Texas, one-fourth, or $10,000,000; and in Tennessee there is a loss of $2,418,432 of the $8,160,809 annually expended on the public schools there.

A biennial report from Wisconsin showed that, from the attendance reports and the records of expenditures for teachers' salaries, almost $2,000,000 was wasted in teaching children who were absent from school.

It would seem that the advantages derived through the use of this new ultra-violet ray transmitting glass would convince tax-payers that not only are they saving public funds by installing this new glass but they are sending these tax-payers' children home every day much healthier.

Wisconsin Part-time Classes in Agriculture

Part-time classes for approximately 40,000 farm boys who have dropped out of school "about as soon as they conveniently could," and evening classes for adult farmers, constitute two important branches of the vocational agricultural education program in Wisconsin, it was stated February 2 by the chief, Dr. C. H. Lane, of the Agricultural Education Service, Federal Board for Vocational Education.

Part-time courses for farm boys, he said, are arranged according to the particular needs of the groups attending, and are contrasted from the traditional high-school courses by their elasticity as to length and content. The evening schools for adult farmers, according to Dr. Lane, are a part of the general movement to extend opportunities for education to all persons of any age who need it.

Dr. Lane estimates that the net income from projects carried on in the part-time classes for farm boys in Wisconsin amounted to $19,860.09 in 1926, and that a total profit of $27,754 accrued to the adult farmers as a direct return from projects in the evening classes.

The NATION'S SCHOOLS

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Editorials

What Does "Intelligence Quotient" Mean?

PRESUMABLY I. Q. denotes the capacity of an individual to learn. It is an index of his mental ability. It shows what can be expected of him in the performance of intellectual tasks. If a pupil has an I. Q. above normal, it tells us that he can, or at least that he ought to, do better work in school than most of his classmates. If he has an I. Q. below normal, he will be backward in school as compared with the majority of his classmates. If we have the intelligence quotients of all the pupils in a class, we know how to group them so that each one will be placed where he can work up to the measure of his ability.

Note that we said that *presumably* the I. Q. tells us all these facts about our pupils. How fortunate it would be if it really did reveal so much that could be used by a teacher as a guide in dealing with her pupils. But an I. Q. as determined by our present methods of measurement does not reveal everything concerning a pupil's ability. If a child has performed the tasks in any one of a dozen or more intelligence "scales" that are in favor at the present time, in favorable circumstances so far as his physical condition and his surroundings are concerned, and if the score he makes is compared with his chronological age so as to derive his I. Q., the teacher can employ the I. Q. as an indication of the pupil's capacity to do schoolwork of a verbal and symbolic character. But that is about all that the I. Q. test reveals.

I. Q. May Not Be Sufficient

Unless the pupil is subjected to tests which measure capacity to understand natural objects, or to manipulate mechanical contrivances in contrast to learning words and symbols, his I. Q. may not be an adequate index of his mental ability. A pupil might earn a high I. Q. in verbal and symbolic tests but not be able to deal in a superior way with concrete situations involving the management of natural objects or mechanical devices; and he might be relatively incompetent in making adjustments to social situations. Ability is more or less specialized; one person may be gifted in mathematical ability but at the same time he may be inferior in mechanical or administration or social ability; although the majority of

individuals maintain a fair balance among their several abilities.

It is not known to-day (but hundreds of people are working on the problem) precisely what our popular scales for measuring intelligence do really measure. But it is known that they favor linguistic and symbolic rather than other types of ability. There is no doubt whatever that an I. Q. determined by any of a number of intelligence tests furnishes a good index of a pupil's capacity to learn to read, to spell, to perform the fundamental operations in arithmetic, to memorize historical and literary facts, to write compositions on general themes, to learn algebraic formulae and apply them according to rules, to give logical proofs in geometry, and so on; but it is not a dependable index of his capacity to solve concrete arithmetical or geometrical problems, or to apply anything he learns to the construction or manipulation of objects as contrasted with *words* and *symbols*.

Education for the New Times

THE reader should not be terrified by the title of this editorial. We have no intention of attempting to cover the whole field suggested by the phrase—"Education for the New Times," at least not at this time. We have in mind to draw attention here only to one phase of education required by the new problems that we are confronting in this rapidly changing world.

To launch into our topic at once: Mrs. Bertrand Russell, of England, is in our country lecturing to young people within and to older folks outside of school and college. She is advocating what used to be called, and is still called by some persons, "Free Love." She is protesting against "puritanical" restraint in the relations of the sexes. She is telling students—at least they are interpreting her as meaning—that they would be better off if they were not restrained or restricted by conventional proprieties and inhibitions in respect to amatory adventure. She is telling them, further, that before they settle down in life with one mate they should try several, if necessary, in order that they may have a choice instead of being limited to one. She has offered substantially the same advice to youth—and to older persons too—in her "The Right to Be Happy."

Young people—older ones also—are "eating up" Mrs. Russell's teachings. They attend her lectures in flocks and shout, "Aye! aye!" when she claims that America is too "puritanical," too "mid-Victorian," too pious, and so on. We have held conversation with students who have heard Mrs. Russell and have read her views on the right of anyone to gratify amorous impulses in any practicable way, only so that he or she is "honest" about it; and they are eager to follow her counsel so far as the law will permit, or farther if they can get by with safety. Freshmen students in college come up from high schools and accept the Russell philosophy of life without any hesitation. They seem to have gained nothing from their twelve years of schooling that enables them to maintain poise and stability in deciding questions of personal conduct so as to resist the seductions of the flesh. Apparently arithmetic, penmanship, spelling, algebra, grammar, geography, and even history, science, and English literature have not developed in these young people mental acumen enough to see the fallacies in Mrs. Russell's superficial and prejudiced, though sincere, handling of a very profound and complex problem.

Mrs. Russell is not the only one who has recently come to our country or who is a native American and who is advocating a program of life for every individual which undermines the very foundations of American civilization. Some of the popular motion pictures are giving currency and effect to the personal freedom, or perhaps license, that Mrs. Russell is advocating. Much of our modern fiction and magazine literature is doing the same thing. There are many persons and agencies among us that are trying to disrupt the institutions that have been built up in this new country largely in protest against the type of amative relationship that Mrs. Russell and other free thinkers and free lovers are seeking to have adopted in our country.

A Little Learning May Be Salvation

It may be that a little learning is usually a dangerous thing; but in the present emergency it might prove to be a means of salvation. Mrs. Russell comes from the mother-country and tells us that we are "puritanical" and "mid-Victorian." While these were once terms of approval, just now they contain something of reproach. They denote to those who use them narrow-mindedness, austerity, asceticism in companionship, and emotional paucity, rigidity, and frigidity. When a seventeen- or eighteen-year-old youngster tells his mother, who counsels him against license and lasciviousness in his conduct, that she is still a puritan, that she ought to have been born a couple of generations earlier so that she could fraternize with the other mid-Victorians, he means that she is too restricted, too conventional, too hide-bound in her behavior, that she is missing much that is really interesting in life—and all because she believes that it will be better in the long run for

any one to exercise some restraint of his amorous impulses and to maintain romantic and chivalric relations toward the opposite sex. This is what the free lovers mean when they say that the Americans are "puritanical" and "mid-Victorian."

If Mrs. Russell had made a little survey of the experiences of her own people in the field of sex adjustment and relationship, she would have discovered that American civilization was founded by a group who had an opportunity to observe the workings of just the program of life that she approves. The thing that she and the movies and modern fiction are promulgating is not new. It has been tried out a thousand times at least by different peoples; and without exception apparently, it has sooner or later weakened those who practiced it so that they have passed out of the picture or are now in a process of decay. Anyone who has made observations among some of the people of the world wonders why Mrs. Russell would come over here and try to get our young people to adopt a kind of life that has been adopted over there and which we had decided that we did not want to emulate.

Mrs. Russell certainly knows that the puritans adopted a régime of life that she regards as undesirable because they saw what was happening to the people who were giving free reign to elemental passions. They decided to follow a program which would enable them to conserve energy and utilize it in upbuilding and constructive instead of in self-indulgent ways. They may have gone to extremes in their austerity and renunciation of physical gratification; but they willingly agreed that they would rather suffer from abstinence and deprivation than to degenerate from licentious indulgence.

Investigation Would Lead to Caution

If our young people—or their adult advisers—had made a little study of the adjustment of the sexes among peoples who have experimented before us or who are now reaping the harvest of indulgence, they would not be led so easily to espouse Mrs. Russell's superficial philosophy, even though she is frank and sincere. Foreign languages, technical history, mathematics (Bertrand Russell is a great mathematician and he is promulgating about the same social doctrines as his partner), will not enable young people to hold to a course in present-day life which will keep them free of the rocks. There is much money to be made out of lecturing and writing (no reflection on the Russells, either Bertrand or Dora) and picturing against the fundamental doctrines in our American civilization; and we are going to have more of it rather than less of it, possibly with more unfavorable results.

It is an unfortunate time to preach indulgence, amorous or otherwise, in our country, because our young people—and many older ones—have practically no duties to perform that are essential for their welfare. Electricity and gasoline are now doing the chores which young people had to do fifteen or twenty years ago and which helped them to develop stability and control. They are being overfed and over-stimulated emotionally by influences which have come into American life during the last two decades. There has never been anything comparable with the increase of emotional stimulation and indulgence in our country recently, and some of our people are ready to follow any lure to greater indulgence and release of restraint and inhibition.

Survival Through Restraint

The adjustment of the sexes has always been the most important problem which any people have had to solve. Those who have diverted their energies from license in amatory indulgence into constructive channels in intellectual, social, ethical, and aesthetic interests and activities have survived, while those who have not followed some such a program have passed into oblivion or are in the process of degeneration at the present moment. So far as we have been able to discover, there never have been a people who have devoted too much of their energies to aesthetic and social and intellectual pursuits and too little to amatory relations, or who have been too chivalric or too romantic. It is possible that there have been individuals and groups who have been too escetic for their physical well-being; one hears sometimes of persons who have lost mental poise and balance because of too rigid inhibition of elemental impulses. But after all, these cases are extremely rare and they are always complicated with other factors which may be chiefly responsible for the gradual disintegration of a personality.

If our young people could spend some of their time in school in studying the sex adjustments of peoples and the results thereof at one period or another in human history, Mrs. Russell and most of the modern fictionists and some of the picture makers would speedily lose their audience. It is not intended to say that we do not need to discuss the problem of sex relationship in American life. We do need to discuss it; but our leaders and counselors should be persons who have really gone beneath the surface of the problem and have studied it biologically, physiologically, sociologically, and historically. We ought not to dis-

card the ideals, customs, and social and moral notions that have played the dominant rôle in American civilization without first making sure that there is something better ahead of us, something besides reversion to a program of life that has been followed time and again by peoples before us to their own undoing.

Are We Mothering Our Children Too Much?

THROUGHOUT the country the movement to extend the high-school course two years and thus create a junior college is pushing forward vigorously. There can be no doubt that we will develop a junior-college system in this country. But is it wise to add on two years to a senior high school in order that our young people may remain at home and still secure the advantages of college training? Wouldn't it be better for our youth to leave home by the time they have reached the age of seventeen? Are we not mothering our boys and girls too much? Hasn't the typical youth exhausted the resources of his home town and home school by the time he has completed a senior high-school course?

The typical young person who has spent twelve years in the schools in any community needs to be placed in a new environment in order that he may be stimulated to do his best. He needs to be brought into contact with new teachers, new classmates, and new environments. He will go dead in intellect and character unless he is placed in new environments. He should be thrown upon his own resources and not be coddled by parents or life-long friends. If he waits until he is twenty before fluttering out of the home nest, he will find it difficult to adjust himself to a program of life in which he has to determine his own course, solve his own problems largely, and learn that as he does unto others so shall he be done unto.

Dangers of Parental Protection

Take a hundred young persons chosen at random, and ninety or more of them should be detached to a large extent from childhood associations by the age of seventeen. Some of the psychologists have in recent years been studying abnormal cases of home attachment. Some persons, even adults, when away from their parents or friends are helpless; they feel lost in a strange world. Such individuals have remained too long in their homes—under the wing of the mother especially. She has solved the problems of social adjustment for them. She has played the chief role in all their adaptations, which they should have made on their own initiative. They should have borne the consequences of their failure to think their problems through and control their conduct in harmony with the requirements of the situations in which they are placed. Nature intended that quite early in the teens young persons should do their own thinking and suffer the consequences of their thoughtlessness, indolence, self-indulgence, and all the other ills that prey upon the intellectual and moral nature of adolescents.

It is true that there are homes in every community in which adolescent boys and girls are not coddled. When they go to the high school they mingle with boys and girls from other types of homes and from different social and economic sections of the community. The parents do not shield their children from the consequences of their blunders and selfish actions. Under such conditions, young people will derive from a junior college in their home town many of the benefits which they would gain by going away to college, and such individuals might well remain under home environments through the high-school and junior-college period. But as intimated above, ninety per cent at least of the pupils in any typical high school should not be permitted to drag through a junior-college period at home. They should either be sent away from home to college or be sent out to work so that they can learn to play the game of life fairly and confidently before they get set in their intellectual, emotional, and social attitudes.

Is There a Saturation Point?

DURING the progress of the survey of the public educational system of Mississippi, some educational tests were given to a large number of high-school seniors and to the freshmen students in all the colleges and universities, public and private. One purpose of these tests was to compare the educational status of high-school seniors and college freshmen in Mississippi with seniors and freshmen outside of Mississippi in respect to their advancement in fundamental subjects of high-school and college education. The same test—the Iowa High-School Content Examination—was given to the seniors and to the freshmen.

There are four factors or elements in this examination—English, science, mathematics, and history and social science. The title of the examination indicates that it is designed primarily for high-school pupils, but it is just as serviceable in studying the educational achievement of freshmen in academic colleges. The instruction in all the higher institutions in Mississippi—and the situation is much the same throughout the coun-

try—closely resembles in content and method, the instruction in high schools.

That is to say, college students are expected to learn more or less memoriter the content of lessons in English, history, mathematics, sciences, and so on. They are not required to *use* what they learn but only to pack away facts gained from books and lectures and to bring forth the facts again at quiz or examination time. Most of the colleges and universities in our country require their freshmen to do about the same sort of thing that these freshmen did when they were pupils in the high school so far as the *quality* of their work is concerned; they pursue substantially the same subjects according to substantially the same methods. They aim to do more advanced but not essentially different work in the first year in college as compared with the senior year in the high school.

Tests Reveal Little Difference

What do the tests given to high-school seniors and college freshmen in Mississippi reveal? That the freshmen had not advanced appreciably beyond the seniors in any of the fundamental branches of instruction. Taking all the seniors together and all the freshmen together, the latter stood slightly ahead of the former; but taking the seniors in the high schools in communities of more than 2,500 population, the seniors were, taken as a whole, distinctly ahead of the freshmen, taken as a whole. This was true in every branch and in the examination as a whole.

There is reason to believe that a similar situation would be found in other states—that college freshmen pursuing mathematics, English, history, and sciences according to the same methods that were employed in the high school do not show any significant results from one year of college study beyond the senior year of the high school. Apparently, pupils in the high school reach a saturation point beyond which they make little or no progress. They may even lose ground—as though their interest in formal academic work had declined. Is it possible that Nature cannot stand only about so much of mere learning, and that if a pupil does not *use* what he has learned he will forget what he has acquired?

It seems to be a universal law of Nature that what is not usefully employed to promote adjustment will become atrophied. If one lies on his back for a month, his mechanisms for preserving equilibrium will decline. If he ties up his arm for a month his biceps will decline. Any organ that is not used will lose its strength and efficiency. This law applies apparently to the mental as well as to the physical organism. An unused faculty grows weaker. In the same way, knowledge that has been memorized but which has not been utilized in any way in solving actual problems involved in adjustment to one's social and physical environments will grow dim or disappear altogether.

When a student goes to college he ought to enter a new field. He ought to be put at work in a new way. He ought to feel a tremendous stimulus to gain knowledge in order to solve actual problems. He ought not to carry into college the memoriter habit of studying. He ought not to be required merely to remember anything that will not be functional in explaining the world about him or in manipulating the forces of Nature so as to promote his well-being or the well-being of the particular group of which he is a member.

Nature apparently abhors mere verbal learning beyond a certain point. Just where this point falls, no one can tell—it may fall earlier than the senior year of the high school. But it seems apparent that Nature has not designed that one should go on endlessly storing up information without making use of the information to facilitate adjustment to the people, the objects, and the forces in one's environment.

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Guess Work Is Yielding to Scientific Accuracy

AMERICA is leading the world in the development of accurate methods of measuring mental ability and educational achievement. There are some persons among us who think that education will become too greatly mechanized as the result of the enthusiasm that is being manifested in the employment of tests and measurements in the effort to determine the type of work for which individual pupils are best adapted and the extent to which subjects and methods of instruction are yielding anticipated results. There is not a branch of study or a mode of teaching which is not feeling the influence of the measurement movement that is sweeping our country. Are there intangible values in education which cannot be measured? If education produces any change in an individual, say the enthusiasts, the change can be measured if we can devise sufficiently delicate and exact scales for the purpose. Literally thousands of psychologists and educationists are at work in our country evolving and applying measuring units or scales in the hope that ways may be formed to detect even the most remote effects of educational work upon the physical, intellectual, emotional, social, ethical, and aesthetic adjustments of the child.

Elementary-School Construction in Birmingham

SO MUCH interest has been expressed regarding the cost of elementary-school construction that it is pertinent to present herewith a tabulation of costs on seven recent projects in Birmingham, Ala. All of the contracts have been awarded on a competitive basis and the figures show the cost per cubic foot as well as the unit cost per pupil accommodated. A short description accompanies each tabulation.

Contracts were awarded December 16, 1927, to the lowest bidders for the following six elementary-school buildings and additions at these figures:

Acipco; a total expenditure of $30,410.77, including $1,309.55 for architects' fees.

Bush; a total expenditure of $55,220.78, including $2,377.92 for architects' fees.

Glen Iris; a total expenditure of $49,070.44, including $2,113.07 for architects' fees.

Minnie Holman; a total expenditure of $123,150.29, including $5,303.13 for architects' fees.

Kennedy; a total expenditure of $61,478.40, including $2,647.40 for architects' fees.

Councill; a total expenditure of $46,458.16, including $2,000.59 for architects' fees.

Acipco—A two-story addition containing, on the ground floor, two classrooms, and a corridor; on the first and second floor, also two classrooms and a corridor each, making a total of six classrooms and three corridors. There will be wardrobes in the corridors to furnish space for the children's wraps. The addition will accommodate 210 pupils.

CONTRACTS AWARDED—ACIPCO

Type	*Amount*	*Cost in cents per cu. foot*
General	$25,532.00	23.2
Plumbing	526 81	0.5
Heating	1,708.00	1.6
Wiring	1,334.41	1.2
Total	$29,101.22	26.5
Number of cubic feet in addition		109,830
Unit cost per pupil accommodated, including architects' fees		$144.81

Bush—On the ground floor of the Bush school addition will be an auditorium, a girls' toilet, and a corridor. The floor level of these rooms is designed three feet lower than the floor level of the present building in order to give the necessary ceiling height in the auditorium. The first floor of the new auditorium will contain a standard classroom with entrance from the corridor of the present building at the same floor elevation. The second floor will contain a standard classroom, a drawing room, literature room, girls' toilet, and a corridor. The auditorium will accommodate 210 pupils.

CONTRACTS AWARDED—BUSH

Type	*Amount*	*Cost in cents per cu. foot*
General	$44,798.00	23.16
Plumbing	1,772.00	0.9
Heating	4,890.00	2.5
Wiring	1,382.86	0.7
Total	$52,842.86	27.3
Number of cubic feet in addition		195,360
Unit cost per pupil accommodated, including architects' fees		$262.95

Glen Iris—This addition will be at the rear south end of the present building, and will contain, on the ground floor, a domestic arts room and a manual training shop, both twenty-two by forty-five feet, and a boys' toilet and corridor. The first floor will contain three standard classrooms, boys' toilet, and corridor, as will the second floor. A new entrance to the building will be at the east end of the new unit. The addition will accommodate about 245 pupils.

CONTRACTS AWARDED—GLEN IRIS

Type	*Amount*	*Cost in cents per cu. foot*
General	$39,825.00	20.5
Plumbing	616.37	0.3
Heating	5,046.00	2.6
Wiring	1,470.00	0.8
Total	$46,957.37	24.2
Number of cubic feet in addition		194,088
Unit cost per pupil accommodated, including architects' fees		$200.28

Minnie Holman—This new building, named in honor of the late Mrs. J. H. Phillips, wife of the

former superintendent of the Birmingham public schools, will be located on a new site in South Woodlawn. This site is on a knoll overlooking a beautiful valley and the wooded slope of Red Mountain to the south. The first unit of the new

CONTRACTS AWARDED—MINNIE HOLMAN

Type	*Amount*	*Cost in cents per cu. foot*
General	$95,886.54	25.4
Plumbing	6,171.92	1.6
Heating	13,297.00	3.5
Wiring	2,491.70	0.7
Total	$117,847.16	31.2
Number of cubic feet in first unit		377,200
Unit cost per pupil accommodated, including architects' fees		$293.21

building will be three stories in height, and will contain, on the ground floor, a principal's office, rest room, and storeroom, twenty-two by thirteen feet each, an auditorium, twenty-two by sixty feet, domestic arts and manual training rooms, twenty-two by forty-two and one-half feet each, boys' and girls' toilets, and main corridor.

There will be two main entrances, one next to the principal's office on the west end of the building and one next to the auditorium on the east end. There will be a boiler room at the rear of the building.

The first floor will contain two nature study rooms, twenty-two by forty feet each, a storeroom, twenty-two by nineteen feet, two classrooms, boys' and girls' toilets, and corridor. The second floor will contain a drawing room twenty-two by forty feet, a library, twenty-two by sixty feet, two classrooms, a teachers' rest room, twelve by fourteen feet, a clinic, twelve by fourteen feet, boys' and girls' toilets, and corridor. The unit, as designed, will accommodate 420 pupils.

Kennedy—The addition to this school will be made in such a manner as to retain the symmetry of the present building. Two floors will be added

CONTRACTS AWARDED—KENNEDY

Type	*Amount*	*Cost in cents per cu. foot*
General	$48,500.00	24.9
Plumbing	3,652.00	1.9
Heating	5,815.00	3.0
Wiring	864.00	0.4
Total	$58 831.00	30.2
Number of cubic feet in addition		194,800
Unit cost per pupil accommodated, including architects' fees		$250.93

at each end of the present structure. On the first floor at the south end of the building will be located a manual training shop, twenty-two by forty feet, storeroom, and corridor. There also will be a classroom and boys' toilet at this end of the building. On the same floor at the north end of the building will be located the domestic arts room, twenty-two by forty feet, with a dining room and storeroom opening therefrom. There also will be a classroom and girls' toilet on this floor.

On the second floor at the south end of the building will be located a literature room, twenty-two by forty feet, two storerooms, a classroom, and boys' toilet. On the north end of this floor will be located a nature study room, twenty-two by forty feet, a teachers' rest room, twenty-two by twelve feet, a classroom, and girls' toilet. The new addition will accommodate 245 pupils.

Councill (Negro)—The addition to the Councill school will be erected at the south end of the classroom section of the present new building. It

CONTRACTS AWARDED—COUNCILL

Type	*Amount*	*Cost in cents per cu. foot*
General	$37,848.04	18.2
Plumbing	2,738.00	1.3
Heating	2,481.00	1.2
Wiring	1,390.53	0.7
Total	$44,457.57	21.4
Number of cubic feet in addition		208,100
Unit cost per pupil accommodated, including architects' fees		$96.99

will contain, on the first floor, four standard classrooms, a principal's office, twenty-two by twenty feet, and a corridor. On the second floor will be located a library, twenty-two by sixty feet, two standard classrooms, girls' toilet, and corridor. The third floor will contain four standard classrooms, and corridor. The new addition will accommodate 480 pupils.

Bids were also received for the erection of the Woodrow Wilson school at Bush Hills, which amounted to $98,677.63, including architects' fees of four and one-half per cent.

Woodrow Wilson—The proposed first unit of this new school will be located in Bush Hills. The first unit of the building will contain, on the first floor, the principal's office, twenty-two by fifteen feet, a rest room, twenty-two by fourteen feet, a storeroom, twenty-two by ten feet, an auditorium, twenty-two by sixty feet, a manual training shop, twenty-two by forty feet, a domestic arts room, twenty-two by forty feet, girls' and boys' toilets,

and connecting corridors throughout the building.

On the second floor will be located a drawing room, twenty-two by forty feet, a library, twenty-two by sixty feet, two nature study rooms, twenty-two by forty feet each, a teachers' rest room, twelve by fourteen feet, a clinic, twelve by sixteen feet, boys' and girls' toilets, and corridors. This unit will accommodate 280 pupils and will relieve the Fairview and Graymont schools of some of the existing congestion.

CONTRACTS AWARDED—WOODROW WILSON

Type	*Amount*	*Cost in cents per cu. foot*
General	$76,980.00	27.6
Plumbing	5,000.00	1.8
Heating	10,500.00	3.7
Wiring	2,244.00	0.8
Total	$94,428.35	33.9
Number of cubic feet in building		278,600
Unit cost per pupil accommodated, including architects' fees		$352.42

Public School Costs Treble in Past Decade

Payments made for the operation and maintenance of schools in the leading cities of the United States are nearly three times what they were ten years ago, according to a statement issued February 5 by the Department of Commerce.

Expenditures and indebtedness for public schools in the 250 cities having a population of over 30,000, for the fiscal year 1926, are summarized in the statement. These statistics relate only to schools under the supervision of the city corporation or of the independent school district which is practically co-extensive with the city corporation. The total population of these 250 cities represents 35.7 per cent of the entire population of continental United States.

The payments for the operation and maintenance of the schools in the 250 cities in 1926 amounted to $607,059,853, the cost per person being $14.51. These school payments alone represented thirty-seven per cent of the payments for operation and maintenance of all general departments of the cities.

The per capita payments for school operation and maintenance, including interest on debt, incurred for school purposes, in these cities were approximately $15.57 in 1926, while the corresponding payments in 1916 amounted to only $6.30 per capita.

The costs for the operation and maintenance of schools increased 96.3 per cent from 1905 to 1916, and 207.7 per cent from 1916 to 1926, while the costs of general departments, exclusive of schools, increased only 81.6 per cent from 1905 to 1916, and 137.6 per cent from 1916 to 1926.

The expenditures for outlays for permanent improvements for schools amounted to $202,363,361 for the 250 cities in 1926. These expenditures represented 25.7 per cent of the total outlays for permanent improvements of all departments, and exceeded those reported for any other single department except that of highways (streets, roads, etc,), the outlays for which amounted to $332,249,611.

Cities of 30,000 Population

For the 250 cities having over 30,000 population in 1926, the funded or fixed debt incurred for general purposes amounted to $3,371,956,520, and that for schools amounted to $982,362,686, or a per capita of $23.48, the school debt representing 29.1 per cent of the total debt. For the 213 cities having over 30,000 population in 1916, the debt for general purposes amounted to $2,084,984,640, and that for schools amounted to $385,648,460, or $11.95 per capita, the school debt representing 18.5 per cent of the total debt.

The per cent of the total debt issued for school purposes is much greater for the smaller cities than for the larger ones; for the cities having a population of less than 50,000 in 1926, 37.8 per cent of the total debt was incurred for schools, while in the cities having over 500,000 population, the school debt constituted only 21.0 per cent of the total debt incurred for general purposes.

For the 250 cities having over 30,000 population in 1926, the total value of land, buildings, and equipment of general departments amounted to $5,589,353,273. Of this total $2,112,921,879, or 37.8 per cent, was for schools. For the 213 cities in 1916, the value of land, buildings, and equipment of general departments amounted to $2,734,875,791, of which $750,074,115, or 27.4 per cent, was for schools.

Rapid increase in the number of junior colleges continues. The growth may be illustrated by the public junior colleges—those maintained as parts of public school systems. The number of these for the country as a whole in 1922 was placed at forty-six. Although no accurate count has been made since that time, the scattered evidence from various sources gives one the assurance to estimate that in the intervening years this number has mounted to a figure somewhere between eighty and 100. That is, the number of public junior colleges has probably nearly doubled.

The Educational Round Table

Your viewpoints, criticisms, and ideas may find expression in these pages. Write to the Editor, on any thoughts that you feel have significance to the entire school group.

Is Physical Education in Schools Producing Beneficial Results?

MANY of the states of the Union are enacting laws requiring that every pupil in a public school, whether of elementary or secondary grade, should have physical training or physical culture every day that he attends school. These laws are being enacted in response to a wide-spread belief that our young people are not up to standard in physical development or in health. Examinations of young men made during the late war revealed unexpected physical deficiences and defects. Even physicians expressed amazement at the large percentage of men who were rejected for service because they were not physically fit. When people learned the facts, they declared, as with one voice—"We will remedy this deplorable condition. We will see to it that our children give as much attention to their health and their physical development as they give to their penmanship, their arithmetic, their algebra, their Latin, or any other study." As a result of this determination, there are probably very few schools in the country or in the cities that do not have physical education or physical culture of some sort for all pupils.

There is not universal agreement concerning the benefits to be derived from physical education or physical training. There are many serious people among us who maintain that forced physical exercise is never beneficial, either for health or for physical development. In certain schools that have been studied recently there is still a belief that formal gymnastics or calisthenics do more harm than good. The authorities in these schools are trying to secure facilities for spontaneous play or for competitive games which pupils enjoy, and they would like to be permitted to abolish formal gymnastics or required exercise of any sort.

The NATION'S SCHOOLS thinks this is a matter of a good deal of importance in American education and it is planned to publish articles from those who are making a special study of the benefits derived from physical training in schools and who are competent to give advice concerning the types of physical education or physical exercise or physical training that are best suited to the needs of American children. In this issue there are presented views from a number of persons who are responsible for the administration of schools in which physical education is a required subject.

EARL H. COLEMAN, M.D., *Director, Department of Physical Welfare, Fresno Public Schools, Fresno, Calif.*

The benefits derived from physical training are in direct proportion to the interest and spirit with which the pupil enters into the work. It is therefore incumbent upon the school to provide that form of experience which will result in the greatest good to the pupil. There are arguments in favor of both the "formal" and the "natural" or "play" activities. Perhaps each has a definite contribution to make in a balanced program.

In our elementary grades the "play activities" constitute the major part of the program. The formal drill or calisthenics is used for the teaching and testing of posture or for the rainy day when the playground is not available.

In the secondary school there are few if any of the games whose fundamental movements cannot be fitted into a formal drill. We use these drills; first, for giving instruction in the fundamentals of these games and, second, to give to the class as a whole a short "warm up" which seems an essential part of the work of the activity period.

The learning of movements that have to do with football, baseball, basket ball, and track events makes a pleasure of what would otherwise be a bore to many children.

As in medicine there is no "cure all," neither is there any one system of physical training that will fit all situations. Variety and balance are prime requisites of any program of health education.

CHARLES A. RICE, *Superintendent, Portland Public Schools, Portland, Ore.*

It is my opinion that there are many advantages derived from the physical training carried on in our schools. In Portland sixty-one per cent of our elementary pupils are enrolled in platoon or work-study-play schools. In schools of this type the program of physical exercise is varied—there is play—both supervised and free play, in which pupils learn to play games. These latter will be the means of getting physical exercise during their entire life after leaving school. There are the regular gymnasium and calisthenic exercises which assist in building up the physical constitution of the child. There is also the corrective work which builds up the child in those parts of his physical being where he is weakest. His daily program gives forty minutes each school day for these combined activities.

D. E. WIEDMAN, *Superintendent of Schools, Bellingham, Wash.*

The laws of this state make it compulsory that we have twenty minutes of physical education in the elementary schools daily. The laws also permit of physical education in the high schools, although at the present time it is not compulsory and any child may be excused upon written request of the parent.

In compliance with the law, the schools of this city have carried on the physical education program for the past seven years under my direction and I can say without any hesitancy whatsoever that the formal drill in physical exercises given to the children of this district is beneficial. The work in this city is under the direction of a competent supervisor and consists in the presentation of a very efficiently graded course of study in physical exercises from grades one to eight, inclusive. This includes exercises of a modified Swedish gymnastic form, drills, games, folk dances, etc., all of which are carried on within the schoolroom. The high-school work consists of formal gymnastics and athletics. The formal gymnastics are carried on under the direction of a gym supervisor (one for girls and one for boys) and consist not only of the presentation of the exercises, but also of the examination of all students and of the completion of the work with shower bath and good rub. This last is one of the requisites which is not overlooked.

In addition to this work we have a well-organized health department, which makes general and detailed inspection of all the children and makes recommendation for corrective exercises both in elementary and high schools.

We are enthusiastic in this city over the results of our physical education department and believe that when taken under the conditions that our children take their physical exercises, they are as thoroughly beneficial and a great deal more systematic than spontaneous and sporadic play outdoors.

CHARLES BRUNER, *Superintendent, Kewanee Public Schools, Kewanee, Ill.*

I think controlled physical training is in many cases overdone. If group games are used that include the entire class at one time, the benefits of physical exercise derived therefrom are more helpful than those derived from calisthenics. Were it not for the beauty of the rhythm obtained in calisthenics, that type of physical training would not have the appeal it does.

C. C. WIEDEMANN, *Teachers College, University of Nebraska*

To win or to lose the game is the issue which most every athletic coach faces. In event of a season of games most all of which have been won, his larder is secure for another year or even a short series of years. When the opposite is true, it is probable that he will stay one more year in that community. If most of the games are lost during the next year, he is quite likely to be seeking a new job. In short, for an athletic coach to have continuous tenure in one community, he must see to it that considerably more than fifty per cent of the games played are won by the team under his direction. Such a basis for tenure is pernicious and unsound.

This ultimately means that about fifty per cent of the athletic coaches are seeking new positions about every two or three years. Any game is usually either won or lost. If one-half of the coaches in a state succeed in winning seventy-five per cent of their games in a given year, then the other one-half of the coaches must lose seventy-five per cent of their games played, and are likely to be thought of as unsuccessful coaches. In the long run, this extreme case does not exist. The true picture is more to the effect that the teams in the high schools of any state over a period of ten years should win about one-half and lose

about one-half of all the games that are played.

The position taken is definite and to the point, namely, that every community over a period of about ten years may expect to win about fifty per cent of all games played by its high-school teams, when playing with opposing teams within their class. The results of play—win, lose, or draw—during a single season or even two or three consecutive seasons is not a sound basis upon which to erect judgment as to whether or not a given athletic coach is either a success or a failure.

It is well to inquire into the nature of the thinking of several groups of people who are interested in the development of the boys and girls in our high schools. Three groups seem from time to time to be able to indicate the importance of their respective positions. These groups are: (1) The parents in the community; (2) the group of well-meaning citizenry that makes the out and out demand that a successful coach "win games" consistently year after year; and (3) the personnel of instruction within the public school system of the community. It would seem that the school system stands between the definite and somewhat opposed points of view maintained by the parents and the "win games" group.

The Parents' View of School Work

If the parents are interviewed, one is very likely to be informed about as follows: The work of the school is (1) to sustain and improve physical well-being; (2) to teach reading, writing, arithmetic, and like subjects efficiently; (3) to train the child to be a better member of the home; (4) to train the child to live the life of a socially respected and law abiding citizen; (5) to train the child to make worthy use of leisure time; (6) to assist the child to make a careful study of how to make a living and appreciate the joy and beauty of honest work; and (7) to stimulate appreciation of things beautiful and artistic in order that the cultural and ethical behavior of the child may be adequately provided for. Those same parents are likely to tell you that they pay taxes to provide for an educational program that supposedly is put into action during the school day in such a manner that the work of the school may be realized.

And then, to make the issue more binding, parents ask the question, "In what ways do athletics contribute to help boys and girls after they graduate from high school and are faced with the problem of making a living?"

Although the evidence may not be conclusive, there is much to be said in favor of the principles that athletics may be so carried on in our high schools for boys and girls that: (1) Their physical well-being is sustained and improved; (2) they will improve and become better social members of the home; (3) they may develop as law abiding citizens of the community; and (4) they may learn the value of the worth while use of leisure time.

To sustain and improve the physical well-being of the boys and girls alone is a most worthy objective to realize. Does it imply types of games that result in injury to many or even a few athletes? Or does it imply a type of athletic program which provides ample protection from injury of each athlete engaged in more or less strenuous forms of games? Is the loss of the life of even one boy or girl justifiable, when that loss may be directly and undeniably charged to some form of athletics?

Neglect Majority of Students

Those same parents will make the additional point that athletics like football, basket ball, track, and baseball tend to develop teams for those boys and girls who are unusually endowed physically. Thus the school neglects the larger and probably more important part of the student body. Their plea is for a broadened athletic and physical education program to include not only athletics, but also gymnastics and playground activities and games. The merit and value of this point of view is undoubted.

Is that the point of view of the "win games" group? If one will take the time to travel to only a few of our stadiums in American colleges and universities and make it a point to sit beside individuals who are known to be extreme enthusiasts of the game which is being played, in due time several things will likely be noticed. Mr. Enthusiast: (1) Is crazy about the game; (2) usually smokes fumigatingly through force of habit; (3) knows all the players of the home team by number and name; (4) can tell about games and players of the past and the good old days; (5) is sure the game is not what it used to be; (6) is likely to have a sizable wager on the game; (7) yells at each sign of success for the home team and "boos" at their slightest failure; and (8) pounds his friend or stranger to the right or left of him while jumping up and down with excitement. (At the end of the first spasm of "thumps" the Mr. Enthusiast usually introduces himself to the stranger). After about the third "rat-ta-ta-tat" of "thumps" vigorously administered by the gleefully enthusiastic individual, the stranger may be offered other inducements to make the game more interesting, largely for Mr. Enthusiast.

One of the outstanding characteristics of some "win games" individuals is their marvelous flow of descriptive terms that range from excellent and acceptable diction to an undoubted brand of corrupted slang, leading on to extreme and indescribable forms of filth and perverted language. During the process of contest a part of their psychological point of view is obviously exposed by their utterances.

A few less violent examples of slang will illustrate the nature of this exposure: "Get that guy," "Flatten 'im out," "Paw his breadbasket," "Come on, bust through that line," "Run 'im to death," "Show 'im your heels," "Gaff 'im, if he crowds you," "Hook 'em, cow," "Give 'im your hip," "Zowee," "Drag 'im out," "Bean 'im," "Look 'im over," "Let's see some claret," "Bust his nose," "Hammer the button," "Let's see your stuff," "Yer yeller," "Stand up and take your medicine," "Come on and fight," "Down 'im in his tracks," "Squeeze his head," "Twist his toe," "Scissor 'im, make him give up," "Sock 'em in the jaw," "Wear 'im down," and "Tackle 'em low." The above samples are not polluted with extreme vulgarisms or directed to specified individuals, both of which may be observed in most any athletically inclined gathering.

In light of the attitude of parents and the point of view of the "win games" enthusiast, what is to be the position taken by the public schools of America?

The Keystone of Our Democracy

The answer is to be found through an appeal to common sense thinking. Certain points are clear. The keystone of our democracy is education and enlightenment of boys and girls. The home of parents is the institution which gives life to boys and girls. The home of parents provides either directly or indirectly the financial support for the educational development of their offspring. The parents must have a deciding part in the progress of education of their children. The public school is an institution and an agent of the home whose function it is to co-operate more intensively with parents in an acceptable process of developing their progeny for the game of life in this our democracy. The public school system of America is dedicated to the work of educating boys and girls toward the ideal of complete, harmonious, useful, and efficient development, to the end that home, community, state, and government may be permanently established through an educated citizenry. This pledges the school to conserve from any expressed viewpoint that which may be utilized to carry on the work of the education of our youth.

It would seem, in conclusion, that the hiring and firing of any athletic coach should not depend largely upon his ability merely to "win games." The tenure of an athletic coach should be determined largely upon his ability to "win youth to strive to win in the game of life"—to carry into the daily life of the boy or girl the joy of good health, the love of home, civic pride, vocational efficiency, national loyalty, the value of a good education, the worthy use of leisure time, and the place for appreciation of the beautiful things of life.

This means that the winning or losing of high-school athletic contests is considerably less important than winning or losing contests of character development of boys and girls.

Naive Realism vs. Sane Idealism

Editor, The NATION'S SCHOOLS:

One of your editorials in Vol. I, No. 1, of The NATION'S SCHOOLS, page 68, entitled "Ideals Are Going Out of Fashion," strikes, it seems to me, a timely note. I wonder if we are not having, in American higher institutions, especially in the fields of science, a kind of recrudescence in the direction of the merely visible, the physical, and the imaginable? It would indicate thought and philosophy in one dimension only, without depth or height. Moved by your editorial, the following line of thought arises in my mind:

"A little learning is a dangerous thing," for it puffs up and intoxicates, if it does not actually *craze*. It makes one conceited; this is the tendency of over-specialized knowledge—which is partial and abstract, in the Hegelian sense. And as every science is a small bundle of human experience, there is a strong tendency in specialists in the highly differentiated fields of science to become so imbued with the spirit and habituation of their particular "dens" that they can see little else; they cannot climb to higher vantage points so as to see their subject matters as only *parts* of a vastly larger whole, and thus be enabled to make comparisons and accord values in true perspective. Such specialists may become chemistry-minded, physics-minded, psychology-minded, etc., and be unable to see the various sciences as parts of a world-whole. The business of science is to investigate, analyze, and organize a particular field and subject matter of human experience; while philosophy has for its aim the synthesis, and the integration, or unification, of parts into a meaningful whole—a world cosmos.

The extreme specialist is inclined to hold his particular subject matter and method so near his eye that he cannot see the whole; he cannot see the woods on account of the trees, or the city on

account of the houses, and if he attempts to carry over, in thought, to other fields he is tempted to use the mental categories of his own thinking; and these may be irrelevant or small. It is possible to hold a copper cent so near the eye that one cannot see the sun, and if the copper is held there for years, it is likely that the person will deny the very existence of the sun and claim that the copper cent is all that there is.

And so the chemist, for example, may come to think that ultimate reality is chemism; the physicist may explain all things by mechanistic conceptions; and the psychologists may come to think that behavior which can be measured quantitatively is the alpha and omega of existence.

Science Specialist Scorns Philosophy

The science specialist, in this way, often comes to regard philosophy, which attempts to think of the world as a whole, as something to be sneered at and scorned as a bundle of assumptions and unverifiable conceptions; in fact, he sometimes denies the existence of any subject matter for philosophy and he belittles any method other than his own.

The scientist often insinuates that philosophy is based wholly on assumptions, forgetting that all science also is based on assumptions; assumptions of the existence of the self, of the objective world, and of the validity of the senses and of reason. In fact, the assumptions of science are often naive compared with those of philosophy, which attempts in a rational way to analyze the fundamental assumptions of science. Critical examination of the grounds assumed by science should not be objectionable to science—indeed it is an attempt to scientize more deeply. For science to scoff at this is to make the dogmatic and intolerant assumption that *it* has hit upon all truth and that either more or less analysis of grounds is worthless and erroneous.

Some of the newer and younger scientists think, speak, and act as if they had discovered, for the first time, conceptions and truths which never entered the mind of man before, forgetting that all great minds have pondered, some time in their life, those same conceptions in regard to which they have become so certain and so dogmatic, and have discarded them for larger and more synthetic ones. In fact, some scientists are the most dogmatic of men, while the philosopher tends to become open-minded and tolerant. The philosopher often has more vital truth but less certainty, while the scientist may have more certainty but less truth.

Prof. William James was first a scientist, for he had a medical education; he then became a psychologist, winning world-wide fame in his day —although some of the younger and later psychologists would say, with a sneer, that James's "psychology" was not psychology at all!

In any event, James then went on into the higher and larger field of philosophy; and thus, if psychology has descended from philosophy genetically and historically, philosophy has also emerged from psychology, as it has in other cases from mathematics, physics, biology, and other sciences.

In fact, every true scientist, when he comes to the boundary of his field, becomes a philosopher: We have the philosophical chemist, the philosophical physicist, the philosophical psychologist, and so on. And it is only the mentally arrested and narrow scientist—he who has gotten stuck in the underbrush of details and who is unable to climb to the tree-tops or the mountain-top—who will scoff and sneer at philosophy and disparage and adversely criticize other men and other fields of thought, in an attempt to magnify himself and his small, specialized, and abstracted portion of human thought and experience; it is really a form of egotism and boasting. The great philosophers of the ages have been, as the term signifies, lovers of wisdom and the most modest and tolerant of men.

See Own Field in True Perspective

The *great* scientists have been men who realized that their task was to discover and formulate truth in true perspective within their own field, and when they philosophized they did so broadly, modestly, and tolerantly. But the specialist who is narrow and egotistical is the one who claims that *his* science—his small part—is the standardizer of method and matter in all fields. He suffers a kind of arrest of development on the plane of his science and assumes an attitude of intellectual superiority and blasé—like a spoiled child who thinks that he knows more than his parents ever have known or ever will know.

Such a so-called scientist sneers at the thinking and ability of Aristotle and Bacon, of Kant and Spencer, of James and Bergson, of La Conte and Royce, and all like them. He does not even know that his own thought is somewhat green and that, as Oliver Wendell Holmes said, it, like lumber, should not be used until it is well seasoned. For him Solomon was a fool, and Christ, a fanatic if not a myth; and he says, not only in his heart but from the house-tops, "There is no God" and man is only a mechanistic "Robot." What naive realism and what egotism and assumption gone to seed!—JOSEPH KENNEDY, The University of North Dakota, Grand Forks, N. D.

Your Every-day Problems

JOHN GUY FOWLKES, THE UNIVERSITY OF WISCONSIN, DIRECTOR

This department is devoted to a discussion of problems arising in the every-day life of principals and superintendents. Questions will be discussed that have been presented to the director by educational administrators in the field at the present time. Inquiries are invited, and should be addressed to Dr. John Guy Fowlkes, Department of Education, University of Wisconsin, Madison, Wisconsin.

To What Degree Should Teachers Participate in Local School Administration?

The question of teacher participation in school administration has received much attention and no little comment during the past ten years. In keeping with the tendency of recognizing the proprietary, and hence administrative, interests of all workers within a given institution, the desirability of teacher participation in the administration of schools is rather generally accepted as desirable. However, the extent to which this administrative participation of classroom workers should go, together with the particular organization most desirable for such participation, is still a perplexing problem in many communities.

During the era in which our system of public education consisted of little more than a rather small group of unorganized, isolated classrooms, there was little that could be properly described as distinctly administrative. In the absence of a definite administrative organization, little if any differentiation was attempted as to the varying functions of professional educators. But, as the number of boys and girls increased, a more closely knit administrative structure was essential for the efficient operation of public education. As the enrollment increased and the curriculum expanded within local communities, the personal relations between the administrative officers and classroom teachers became more complex.

As has been previously indicated, in the earlier development of our educational system no specific recognition was made of the varying functions involved in the different offices of professional workers in education. Indeed, the functions of the teaching force as opposed to the functions of the supervisory and administrative officers have been a process of accretion by means of a grab-bag procedure, rather than the result of any carefully developed plan.

In considering an optimum arrangement for teacher participation in school administration, it is first essential that all groups concerned accept the same definition of educational administration. Administration may be defined as the co-operative stimulation and direction of human effort. Obviously, a corollary of this general definition is that educational administration is the co-operative stimulation and direction of educational effort. Inasmuch as human effort is inseparably wedded to personal relationships, a system of harmonious administrative relationships must be founded upon the established theses of personnel management.

Direct Administrative Officer

Every classroom teacher in relation to the particular group that he is teaching is the direct administrative officer of that group. Recognition of this fact is made in our teacher training programs which spend considerable time on such matters as classroom discipline, classroom management, classroom records, and the physical conditions of the classroom. Any successful teacher recognizes that the pupils under his direction have certain inalienable rights concerning the control of the group to which they belong. Pupil participation in school administration is revealed by such activities as student counsels, student forums, school alumni associations, school athletic associations, and many other similar organizations. Another simple but striking proof of the extent to which boys and girls are recognized as individuals is the manner in which pupils pass to and from classes in the modern day school. Some years past, boys and girls while passing to and from classes were required to preserve an artificial, tomb-like silence and to move in a marching formation that would have done credit

to the famous goosestep. As everyone knows, at present, instead of any such lock-step procedure, the boys and girls are not only allowed, but encouraged to find their way to and from their various places of appointment within a school building in the most natural and easy fashion possible.

Some of the matters in which classroom teachers are most anxious to participate, so far as the local school system is concerned, are: (1) An opportunity to help decide the particular type of organization that should exist in a local school system, for example 6-3-3, or 6-6, or 6-4-4; (2) the privilege of making specific recommendations concerning the particular type of school buildings within a local system, for example, platoon school; (3) an active voice in the development and administration of an adequate salary schedule; (4) a personal part in the formulation and administration of the local school curriculum; (5) specific and definite provisions for the activity of individual teacher originality and initiative; and (6) permanent tenure for classroom teachers.

In light of the large amount of influence reciprocally exerted between classroom teachers and these matters, it seems entirely sound for classroom workers to enjoy the active privilege, as well as the inherent right, to help determine policies in regard to these basic considerations in any local school system. The particular form of organization that should be established for such teacher participation should, in part, be determined on the basis of extenuating circumstances within any given community. Undoubtedly, any scheme of organization should be on a representative basis with specific provisions for discussion of the desires of the teaching force as a whole in regard to any matters that arise in which classroom teachers are particularly interested.

Question Affiliation Practices

One matter that frequently arises in connection with teachers' organizations is the affiliation with some body other than that of professional educators. Sound principles of organization demand that no group of professional workers should become affiliated with any other group of professional workers not in this field. Certainly a state medical association should not be joined with a state bar association. Obviously, then, no group of classroom teachers should be officially connected with any group other than professional educators.

It grows more apparent every day that the administrative relationships between pupils, teachers, principals, supervisors, assistant superintendents, superintendents, and parents are inherently of the same nature, and must be organized and operated on the same general hypotheses of personnel management. If such be the case, it behooves all of those particularly interested in and concerned with educational policies and the attainment of the objectives of modern education to realize that personal relationships lie at the root of all human endeavor. Every human being in the world is, to some degree, an administrative officer. The most essential requirement for a successful administrative officer is the ability to establish and maintain desirable personal relationships. Neither autocratic tyranny nor benign paternalism on the part of administrative officials will produce personal relationships that are desirable. On the other hand, neither will steam roller threats nor sullen acquiescence from a group of classroom teachers stimulate the attitudes from administrative officials that are essential to the harmonious operation of a local school system. Critical analysis coupled with intelligent observation must be the basis for the establishment of desirable personal relationships.

How Can the Teaching Load be Equalized?

Equalizing the teaching load is one of the most perplexing problems that the principal and superintendent have to meet. Not only is this a matter of major consideration during the operation of the school, but it also is one of the things that must be given careful attention in the selection and placement of new teachers.

The first element that arises in fixing the teaching load is that of deciding the factors of which cognizance should be taken. The day has long since passed when it can be assumed that all instruction by elementary- and high-school teachers is carried on in the classroom. As a matter of fact, in light of the unquestionable import of extra-curricular activities and the emphasis given to them at the present time, it frequently occurs that the major contribution of a member of an elementary- or high-school faculty will be made outside, rather than inside, the classroom. Also, it must be remembered that the teaching load is one of the major determiners in the budget for teachers' salaries.

The principal factors that might be recognized in equalizing the teaching load are: (1) General qualifications of a teacher; (2) type of school in which a person is teaching; (3) subject a person is teaching; (4) number of different subjects taught; (5) amount of time spent in outside preparation; (6) amount of time spent in work

outside the classroom; (7) number of instructional or class periods put in per week; (8) total number of pupil clock-hours taught; (9) amount of administrative work done; and (10) amount of special work done, such as acting as advisor to extra-curricular activities.

Inasmuch as best administrative practice calls for the single salary schedule, recognition of general qualifications of teachers is automatically provided for by the salary class in which a person is placed, the assumption being that the worker in a fixed class will do a certain minimum amount of work. In the absence of experimental data to the contrary, it is apparently best to attempt no formal recognition of the type of school or the subject a person teaches, so far as the teaching load is concerned.

Combination Teaching Arrangements

Particularly among smaller schools, due in large part to the law of supply and demand, certain subject combinations among classroom teachers are decidedly at a premium, and consequently special arrangements as to the teaching load must frequently be made for such a combination when a teacher is employed. As an illustration of this, the matter of the high-school coach serves very well.

In order that the high-school coach shall enjoy the same professional respect from students and faculty alike as do other members of the instructional staff, coaching should be an extra, rather than a major, activity of the person involved. The administrative officers who select and employ the high-school coach for the small communities frequently encounter much difficulty in finding a person who combines the requirements just mentioned with the proper character that comes only with experience and maturity. Consequently, it is necessary to make adjustments in the teaching load in order to obtain the right type of man as high-school coach. Also, again with particular reference to the small school, it is difficult to find a person qualified to teach certain language combinations.

It will be seen that of the ten elements listed above, only four are left of which formal recognition should be made. These four are: (7) Number of instructional or class periods put in per week; (8) total number of pupil clock-hours taught; (9) amount of administrative work done; and (10) amount of special work done, such as acting as advisor to extra-curricular activities.

The basic element must be the total number of instructional hours classroom teachers put in per week, together with the total number of pupil clock-hours taught. A quite satisfactory way of providing for the total number of pupil clock-hours taught per week, and one which most progressive school administrators have adopted, is the establishment of minimum and maximum numbers for individual class enrollment. There is some dispute among educational administrators as to the optimum class size standards. However, thirty-five for the high schools and elementary schools alike seems to be the best maximum class standard so far as the size is concerned. Attention is called to the fact that the same standard is suggested for all levels of work. This is in keeping with the single salary schedule and is something that administrators should exert an active effort to attain. Minimum class size standards are matters for local adjustment.

In some communities, certain activities are offered for a single individual during the semester. Where such is economically feasible, and the community so desires, this is probably defensible.

Teachers' Extra-Curricular Work

As has been previously suggested, in equalizing the teaching load, it is necessary to recognize the fact that extra-curricular work done by teachers is a part of the formal program and should be considered insofar as satisfactory practice may be taken as a sound criterion. The wisest policy seems to be to weigh each class period or its equivalent as one unit and to consider time spent by a teacher in extra-curricular work as one-half of a regular instructional period. Proper adjustment in the teaching load because of administrative work done by classroom teachers can probably best be made by special arrangements with the individuals concerned. Insofar as the entire teaching force is concerned, such cases are special, rather than general, and consequently should be so treated.

One scheme that is quite commonly employed in fixing minimum and maximum teaching loads is the assignment of a certain number of points to each period of regular classroom instruction or its equivalent, and the establishing of maximum and minimum teaching loads in terms of these points. For example, a credit of one point might be established for each hour of regular classroom instruction, or its equivalent, and a minimum teaching load of twenty-five points and a maximum of thirty points per week put in operation.

A satisfactory teaching load is one of the most essential requisites for the successful operation of an educational institution. It is hoped that the discussion presented may prove helpful to educational administrators of local school systems.

Boston Meeting Proves Successful from Every Standpoint

ENORMOUS crowds surging through the exhibit halls and into the meeting places, the speech by President Lowell of Harvard, the report of the committee on curriculum making, the presentation of a life membership certificate to Mrs. Evangeline L. Lindbergh, the election of Superintendent Boynton of Ithaca as president for the ensuing year, the trips to historical places around Boston, the fine spirit of hospitality displayed by all New England, the excellent representation from the far West and South, and the fact that nearly all of those present remained until the very end of the annual convention were the distinguishing marks of the Boston meeting of the Department of Superintendence of the National Education Association.

It is always difficult to estimate great crowds and the figures varied from 10,000 to 15,000 with the likelihood that the attendance at all division meetings held from February 23 to March 1 was very close to the higher estimate. The fact that the meetings were held in every conceivable meeting hall in the city and that many of the sessions were held in Cambridge did not tend to lessen the enthusiasm for the convention. Harvard was the shrine of many educators and some of the meetings were held in Memorial Hall and adjacent buildings during the week.

Frank D. Boynton, Superintendent of Schools, Ithaca, N. Y., who is the new president of the Department of Superintendence.

Much comment was evoked by the speech made by President Lowell at the first general session held in Mechanics Hall. He took occasion to mention that public school education was too costly and was not aimed in the right direction and his remarks drew fire from many of the speakers at subsequent meetings during the week. One school man pointed out that it might have been well for President Lowell to have informed himself as to the actual cost of public school education before giving public utterance on the subject. One of the oldest and best known educators in the country and a man located in Boston told the members of the educational press that to his mind no one knew less regarding public school education than Mr. Lowell and that it was unfortunate that he should have been so widely quoted on the subject. Superintendent Boynton refuted all of Mr. Low-

Joseph M. Gwinn, Superintendent of Schools, San Francisco, was elected first vice-president of the Department.

ell's statements and many of the other speakers referred to the occurrence in speeches made during the week.

Superintendent Broome of Philadelphia made the report of the curriculum committee and it will appear in the Year Book in its full form.

The proposal by the finance committee to ask

Randall J. Condon, Superintendent of Schools, Cincinnati, retiring first vice-president.

for a direct tax against property of $1,500,000 for educational research which was made by Superintendent Condon of Cincinnati met with some opposition headed by Fletcher H. Swift, Professor of Education, University of California, but the general outlines and the tenets of the Curtiss-Reed bill for the establishment of a secretary of education in the President's cabinet was well received by the majority of school men attending the meeting.

"Living Exhibits" from Boston Schools

One of the features of the meetings was the "living exhibits" at which pupils of the different classes in the Boston schools under the supervision of their teachers gave demonstrations of various teaching methods and activities. Another excellent and enjoyable feature was the music that was furnished by the Boston school children. Nearly every session in Mechanics Hall was opened by bands, orchestras, or massed singing by the children. One afternoon was wholly

Edwin C. Broome, Superintendent of Schools, Philadelphia, who gave the report of the curriculum committee.

devoted to the presentation of various musical numbers by the children and an excellent sized crowd was present to hear the numbers.

Much excitement was caused by the arrival of Mrs. Lindbergh, who is a teacher in the public schools of Detroit and the mother of Col. Lindbergh. Col. Lindbergh arrived on Thursday morning and on Thursday evening the certificate of life membership was presented to Mrs. Lindbergh at Mechanics Hall. Both the Colonel and his mother were the guests at many social functions during the week and all Boston joined with the members of the Department of Superintendence to make their welcome hearty.

There were more than 400 speakers listed on the various programs during the week, including those making committee reports. Obviously it would be impossible to make a thorough report of the meeting in any publication other than an official one, so that herewith are set down only abstracts and excerpts of speeches that were turned in to those in charge of the convention. There were in all about 120 of these abstracts presented and it was to be regretted that all of the speakers did not comply with Joy Elmer Morgan's request for abstracts. The masterful way in which the meetings were handled was the subject of much favorable comment not only on the part of the

Cornelia S. Adair, Richmond, Va., president of the National Education Association.

school men present but the exhibitors and those who have attended conventions in other lines of endeavor. President J. M. Gwinn made an admirable presiding officer and was responsible for the smooth running schedules kept in Mechanics Hall. The untiring efforts of Mr. Shankland, Mr. Allen, Mr. Morgan, Mr. Adams, and their associates were well rewarded by the success of the Boston meeting.

New officers of the Department of Superintendence elected at the meeting were: Frank D. Boynton, Superintendent of Schools, Ithaca, president; Joseph M. Gwinn, Superintendent of Schools, San Francisco, and former president of the Department, first vice president; Frank G. Bichell, Superintendent of Schools, Montclair, N. J., second vice president; and Paul C. Stetson, Superintendent of Schools, Dayton, Ohio, member of the executive committee.

On Sunday afternoon six vesper services were held in various churches and halls in Boston. At the Arlington Street Church an address was given by Ada Louise Comstock, President of Radcliffe College, and the service was conducted by Dr. Samuel A. Eliot, pastor of the church. At King's Chapel, Wallace W. Atwood, President of Clark University, Worcester, Mass., delivered the address entitled "Good Will Among Nations." Dr. John C. Perkins conducted the service and, in addition to the regular musical program, the Girls' Chorus from the State Normal Schools at Framingham and Salem, Mass., under the direction of Frederick W. Archibald, director of music, rendered several musical numbers. Ellen F. Pendleton, President of Wellesley College, delivered the address at Christ Church.

Daniel L. Marsh, President of Boston University, delivered the address at the Park Street Church and the services were conducted by Dr. A. Z. Conrad. Dr. Marsh's topic was "Education That Glorifies the Commonplace." At the Cathedral Church of St. Paul, J. Edgar Park, President

Sherwood D. Shankland, executive secretary of the Department of Superintendence.

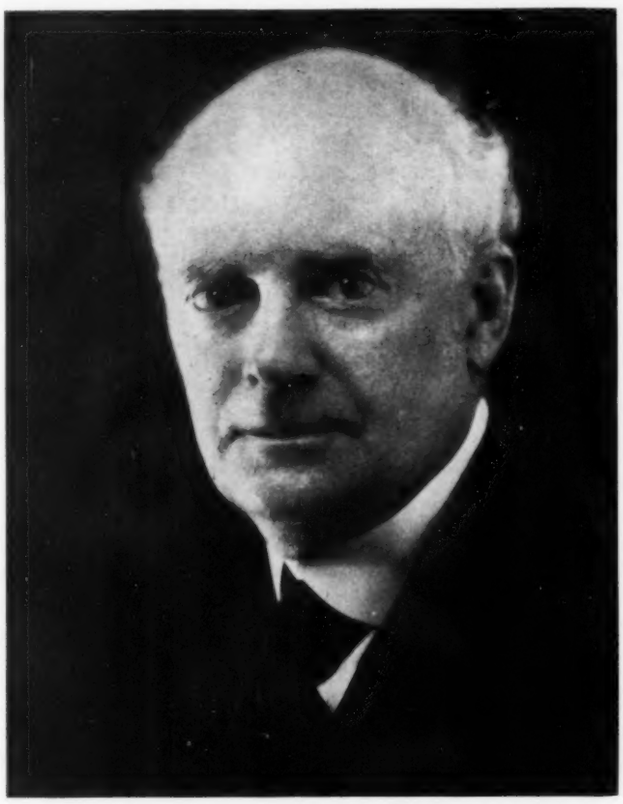
of Wheaton College, Norton, Mass., spoke on "The Official or the Man," and the services were conducted by Dean Philemon F. Sturges. At Faneuil Hall another service was held and was presided over by J. M. Gwinn, president of the Department of Superintendence. The address of the evening was given by Kenneth C. M. Sills, President of Bowdoin College, Brunswick, Me.

The first general session of the Department of Superintendence was opened on Monday morning in Mechanic's Hall. An invocation by Dr. Samuel A. Eliot was followed by a greeting from the Mayor of Boston, Malcolm E. Nichols. He spoke of the many educational institutions in and around Boston and stated that Boston does not intend to resign her leadership in education. Mayor

Nichols paid particular tribute to Alfred E. Winship of Boston. The address of welcome was responded to by Milton E. Potter, Superintendent of Schools, Milwaukee, Wisconsin.

Four well-known speakers were heard at the morning session. Each spoke from a different viewpoint on the main theme "The Secondary School Provides Entrance Requirements." President A. Lawrence Lowell, Harvard University, stressed the requirements for higher education; Governor Alvin T. Fuller of Massachusetts, for business and industry; Mrs. A. H. Reeve, President of the National Congress of Parents and Teachers, emphasized the requirements for the home; and Dr. Jeremiah E. Burke, Superintendent of Schools of Boston, on citizenship. He briefly outlined the plan to develop citizenship through character education and stated that the successful achievement could be obtained only through the loyal, painstaking, and intelligent cooperation of every teacher.

On Monday afternoon the department met in thirteen groups in various halls throughout the city. One group discussed the program of education for American adolescent youth. This session was presided over by Leonard W. Koos, Professor of Secondary Education, of University of Maine. George M. Wiley, Assistant Commissioner of Education, New York State Department of Education, presented a paper on "The Needs of American Adolescent Youth." He pointed out the results of a recent study of the needs of adolescent youth which was based in large part on the reactions of thousands of young people throughout the United States, both in school and in industry.



Jeremiah E. Burke, Superintendent of Schools, Boston, was associate chairman of the executive committee on arrangements.

The second paper presented in this session was by Thomas W. Gosling, Superintendent of Schools, Madison, Wis. His topic was "The Objectives of Secondary Education" and he stated that the fundamental objectives of all education are as follows:

1. To promote the value of an understanding and the adequate evaluation of the self.
2. To promote the development of an understanding and an appreciation of the world of nature.
3. To promote the development of an understanding and an appreciation of organized society.
4. To promote the development of an appreciation of the force of law and of love that is operating universally.

Secondary-School Curriculum Variations

Another group discussed variations found in the secondary-school curriculums. This group was presided over by Albert H. Hill, Superintendent of Schools, Richmond, Va. Edwin L. Miller, Assistant Superintendent of Schools, Detroit, Mich., made a report of the committee on "Relation Between High School and College." Papers were read by Edward D. Roberts, Associate Superintendent of Schools, Cincinnati, and by A. L. Threlkeld, Superintendent of Schools, Denver, Colo.

The third group, under the direction of Thomas R. Cole, Superintendent of Schools, Seattle, Wash., discussed "Differentiating and Expanding the Secondary-School Curriculum." The first paper was presented by Arthur Gould, Superintendent of Schools, Los Angeles, Calif. He spoke of the different levels of ability and stated that experience had demonstrated the wisdom of a small number of homogeneous groups even in a large school in preference to a large number. Oscar C. Gallagher, Superintendent of Schools, Brookline, Mass., spoke on "The Evaluation of Extra Curriculum Activities in Secondary Schools." He stated that "extra curriculum activities fall into three distinct forms: Participation in government, class organization, and supplementary school agencies." And he pointed out that every school needs to have a system for stimulating guidance and if necessary, limiting pupil participation in extra curriculum activities.

The fourth group considered the counseling and guidance of adolescent boys and girls. George M. Child, Superintendent of Schools, Salt Lake City, presided. Among the papers read was one on "Educational Guidance" by F. E. Clerk, Principal New Trier Township High School, Winnetka, Ill. He stated that some of the most effective means of organizing schools for the successful exercise of educational guidance were:

1. Establishing a realization of the value and meaning of education in the mind of every teacher.
2. Provision for supervised study.
3. Promotion by subject.
4. Schedule of studies offering opportunities for selection and explanation under supervision.
5. Plan for testing and studying the individual for educability, aptitude, and interest, followed by a plan of remedial teaching.
6. Special provision for dominant types intellectually.

Ethical guidance was discussed by Harold L. Holbrook, Supervisor of Guidance, Pennsylvania Department of Public Instruction. He told of how Pennsylvania includes a social studies program from the first to the twelfth grades and how many independent districts are now undertaking guidance demonstration and development.

The fifth group considered the curriculum problems of the small high school. A. T. Allen, State Superintendent of Schools, North Carolina, presided. W. W. Coxe, Chief of Educational Measurements Bureau, New York State, spoke on the educational needs of pupils in small high schools. He stated that ninety per cent of the small high schools in New York State offered only a college preparatory course and that ninety-five per cent of the pupils do not make use of this kind of training. He advocated that the high-school course be more general in nature and train the pupils for their future life activities.

Francis G. Blair, State Superintendent of Public Instruction, Illinois, and former president of the Department.

The Senior High-School Teacher

In the sixth group, which was presided over by E. B. Cauthorn, "The Senior High-School Teacher" was the subject of debate. The functions and the carelessness of the teacher were discussed. Charles F. Allen, Principal of West Side Junior High School, Little Rock, Ark., spoke on "The Senior High-School Teacher and Supervision." He stated that the day had come when the supervisor and teachers must stand on their ability to produce results. He stated that the teachers must have special training for which the supervisory official has neither time nor ability to give. "Theorizing and bluffing are giving way before experimentation and standardized results," Dr. Allen asserted. "Likewise, dictatorial supervision is giving way to a co-operative type of teacher participation in solving problems of supervision."

"The Junior College" was the subject under discussion in the seventh group, which was presided over by R. J. Leonard, Director of the School of Education, Teachers' College, Columbia University. James Madison Wood, President of Stephens College, Columbia, Mo., read a paper entitled "The Four-Year Junior College." Dr. Wood advocated a junior college system of four years rather than two and his plan provides for an elementary school of six years, junior high school including seventh, eighth, ninth, and tenth grades; a four-year junior college which would include the last two high-school years and the first two college years; and the professional school which would offer courses beyond junior college.

Nicholas Bauer, Superintendent of Schools, New Orleans, presided at the group discussing school and social agencies. The first speaker in this group was Alfred Freeman Whitman, Executive Secretary, Children's Aid Association, Boston. He took for his topic "What the Schools May Expect of the Social Agencies" and he asserted that the schools can go further than they have in the past in discovering and eliminating factors that cause serious delinquency in boys and girls. Mr.

Whitman said that the social agencies are only too glad to respond to the requests from a schoolteacher and to co-operate with the educators in the United States. He said that he believes that serious juvenile delinquency sometimes has its roots in such matters as inadequate curricula and defective vision since they are not unrelated to school disorder and truancy which in turn seem to be the hotbed for later delinquency and crime.

Mrs. Cornelia James Cannon, President of the Cambridge Public School Association, Cambridge, Mass., delivered the answering paper entitled "What the Social Agencies May Expect of the Schools" and she emphasized the point that what the social agencies may expect from the school depends on the quality of the social agency seeking help and the school authority giving assistance. She said that social workers and educators are admirably fitted to supplement each other.

Practicability of Individual Instruction

The session devoted to adapting elementary schools to individual differences of pupils was presided over by R. G. Jones, Superintendent of Schools, Cleveland, Ohio. One of the papers was given by A. J. Stoddard, Superintendent of Schools, Schenectady, N. Y. He spoke on the practicability of individual instruction. "The expression 'individual instruction' does not mean a return to the tutorial plan," Superintendent Stoddard stated, "and has no relation to physical segregation of the child. It measures the effectiveness of teaching, not so much by class averages and grade norms as by the progress each individual child has made in proportion to his ability. Although at times a part or the whole group may be participating in the same activity the checking and follow-up work must be individual."

Professor W. Carson Ryan, Professor of Education, Swarthmore College, was the chief speaker in the session presided over by Charles S. Meek, Superintendent of Schools, Toledo, Ohio. Dr. Ryan spoke on the true meaning of freedom in education and stated that "examinations, schoolmarks, and a great deal of the mechanics of present day schools will have to be abandoned if there is to be any real freedom in education." He said that the main elements are freedom from the restrictions forming a course of study; freedom from the needless conventional methods; and freedom for the teacher himself.

D. J. Kelly, Superintendent of Schools, Binghamton, N. Y., presided in the session given over to "Health and Education." Dr. Frederick Rand Rogers, Chief of the Department of Physical Education, State of New York, spoke on "Education in Health." He stated that physical education was a general method of improving child behavior and that it attempts to develop character through pupil activities which are predominantly physical in nature.

In the second general session Monday evening at Mechanics Hall, Thomas E. Benner, Chancellor, University of Porto Rico, Rio Pedras, spoke on the "Inter-American Ideals" and W. H. P. Faunce, President, Brown University, spoke on the "Use and Abuse of Democracy in Education."

Edwin C. Broome, Superintendent of Schools, Philadelphia, in giving the report of the Committee for the Commission on the Curriculum, at the third general session Tuesday morning outlined the four important objects which the commission had endeavored to accomplish. They were as follows:

1. To help establish scientific methods of curriculum revision in local school systems.
2. Through the co-operative plan of curriculum revision, to make the achievements of one community a benefit to all.
3. To put the results of scientific research on the curriculum into practicable and useful form and to make them available to superintendents throughout the country through the research bulletins and the Yearbooks that are issued by the Department of Superintendence.

Charles H. Judd, School of Education, University of Chicago, who spoke on "The Junior College."

George D. Strayer, Professor of Educational Administration, Teachers College, Columbia University.

4. To stimulate and encourage school systems to evaluate their present courses of study and to organize committees for improving them.

In the administrative sessions Tuesday afternoon Ernest W. Butterfield, State Commissioner of Education, Concord, N. H., presided over the section for State Departments of Education. C. B. Glenn, Superintendent of Schools, Birmingham, Ala., stated that the schools of Birmingham are really public schools as evidenced by the fact that ninety-five per cent of the children attend the public schools. Among the reasons assigned for this popularity, he stated that the superintendent of schools of that city had held the position for thirty-eight years, had the confidence of the public, and kept the schools out of politics. Likewise, the board of education has won the confidence of the public by administering these schools in a businesslike manner.

"In making the schools public schools through information of what the people want to know it is necessary that the fathers and mothers of our twenty-six million boys and girls understand what American public education is all about," according to Rollo E. Reynolds, Teachers College, Columbia University. "America is not concerned seriously with how much money her schools are costing; but she is concerned, greatly concerned, with what she is getting in educational values for her money," he stated.

The second section, for county superintendents, emphasized "Equal Opportunity for the Country Child." Norman Frost, Professor of Rural Education, George Peabody College, Nashville, Tenn., stated that three things were necessary to equalize varieties of education:

1. We must find the inequalities.
2. Make good plans for eliminating them.
3. Execute these plans.

"The county survey does the first two of these things and helps with the third," he said. "The survey consists of a careful gathering of facts that reveal the inequalities. On the basis of these facts recommendations are made by a group of men selected for their special fitness in school work. In this way the survey helps with the final step of equalizing educational opportunity within this country."

Must Watch Expenditures

"The entire business of education is the biggest in the world save that of the Federal Government," said E. S. Richardson, Superintendent of Webster Parish Schools, Minden, La., "and yet no business spends its money with as little effort toward true economy. The real truth is our schools have outgrown their swaddling clothes. The original time-worn methods of administration and financing have grown inadequate, crude, and unjust. That should and must be changed wholly or revised to meet growing public demands."

Ada York, Superintendent of San Diego County Schools, San Diego, Calif., spoke on the equalization of opportunity for the country child through proper school supervision. "Supervision creates ideals, also definite ways and means to approach those ideals, and in the last analysis acts as a spur to urge our sometimes reluctant souls to make the effort necessary to get this good which is desirable for the schools—that is to say, for the children who are being instructed," she said.

Superintendents of cities with population below ten thousand met in section three which was presided over by Philip H. Kimball, Superintendent of Schools, Brunswick, Me. "Keeping the People Informed" was the subject of papers by John Lund, Superintendent of Schools, Norwalk, Conn.; S. Monroe Graves, Superintendent of Schools, Wellesley, Mass.; and Willard H. Bacon, Superintendent of Schools, Westerly, R. I. The consensus of opinion was that there is no phase of the school problem which cannot be made the subject of effective publicity. The newspapers, parent-teacher associations, letters to parents,

and school visits in other communities are means of keeping the public informed.

Harry W. Langworthy, Superintendent of Schools, Gloversville, N. Y., spoke on the improvement of teachers in service. He suggested that they be selected and classed with care and should be judged on the basis of what they are attempting to achieve rather than on the basis of what the superintendent thinks they ought to be achieving.

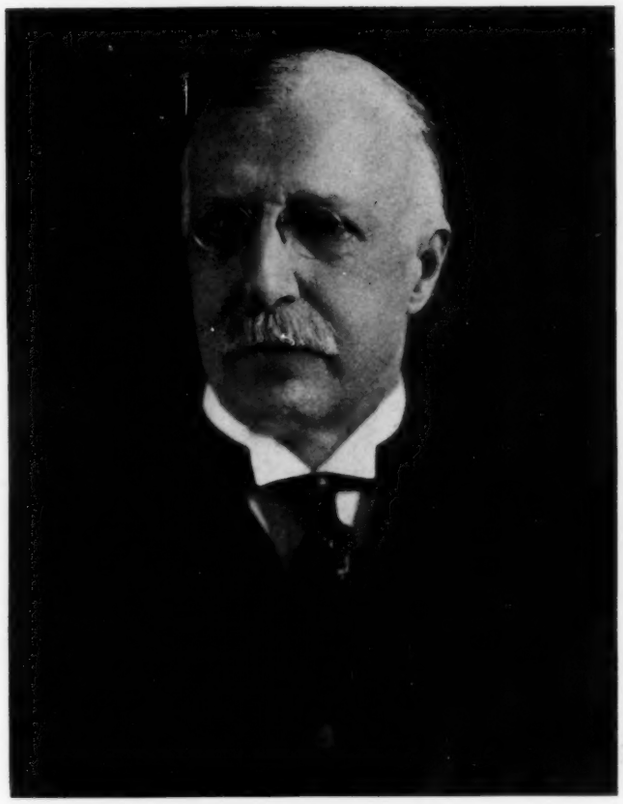
"Appropriate Forms of Publicity for Promoting the Best Interests of City School Systems" was the topic discussed in section four, for superintendents of cities with a population of between ten thousand and one hundred thousand. W. J. Avery, Superintendent of Schools, Alexandria, La., said that to be effective, school publicity should be condensed and systematic and free from propaganda, politics, and selfishness. The public press is eager to publish news of importance about the schools; but it is too often neglected by school authorities though its use is on the increase.

Obtaining Publicity of Value

"Publicity of value may be obtained through the Department of Vital Statistics and Research of the U. S. Department of Labor," according to L. C. Bain, Chief of Bureau of Child Accounting and Statistics, Cleveland Public Schools, Cleveland, Ohio. Mrs. A. H. Reeve, President, National Congress of Parents and Teachers Associations, Philadelphia, in discussing "Publicity Through the Medium of Parent-Teacher Associations," stated that the home is the training school for life and this training must supply three qualifications: Personal, social, and commercial.

In section five, for superintendents of cities with population from one hundred thousand to two hundred and fifty thousand, the topic discussed was "Present Problems in Adult Education." R. C. Deming, State Board of Education, Hartford, Conn., in giving the viewpoint of the state suggested that opportunity for citizenship training must be offered to adults in hundreds of cities which now foolishly pride themselves on their good schools even when illiteracy steadily increases. In this same section special classes and child adjustment were discussed by various superintendents as to the problem in their respective cities. John A. Young, Assistant Superintendent of Schools, Bridgeport, Conn., outlined the preparatory work and the main objective in Bridgeport.

Frank W. Ballou, Superintendent of Schools, Washington, D. C., and W. F. Webster, Superintendent of Schools, Minneapolis, discussed the improvement of teachers in service through the salary schedule in section six, for superintendents of cities of two hundred fifty thousand and up. The value of demonstrative lessons in improving teachers in service was stressed by Isaac O. Winslow, Superintendent of Schools, Providence, R. I.



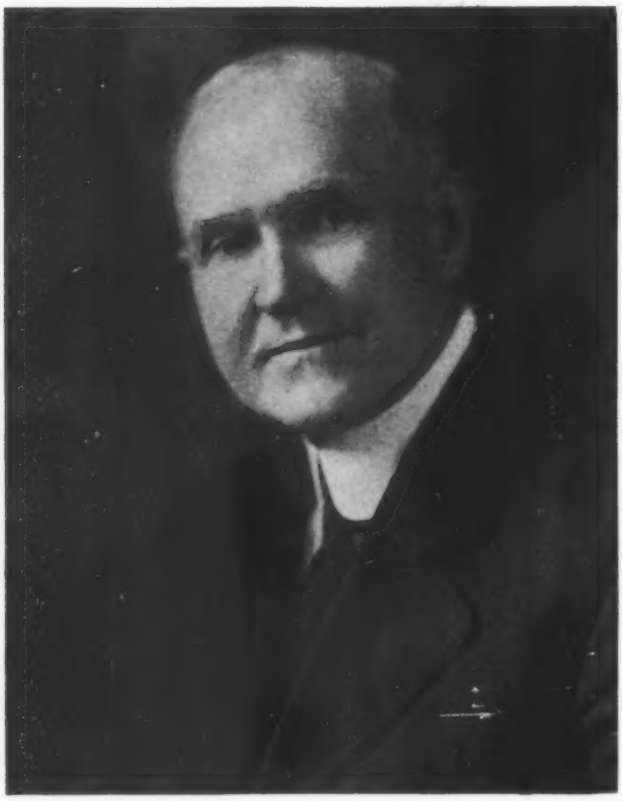
W. H. P. Faunce, President, Brown University, who spoke on "The Use and Abuse of Democracy in Education."

F. M. Underwood, District Superintendent of Schools, St. Louis, who presided over section seven, for city assistant and district superintendents, emphasized the opportunity to make a real contribution to effective educational service by an analysis of the job of these positions.

"The functions delegated to an assistant by the superintendent may be grouped broadly into two classes: Staff and line. That is, the assistant may be assigned to supervision of a geographical unit within the city, wherein he virtually is the acting superintendent of schools. Or he may be assigned to city-wide duties along particular lines," according to Arthur C. Perry, Jr., District Superintendent of Schools, New York City.

A movement was started looking toward a national organization of city assistant and district superintendents in this section.

"In the absence of standard quota of supplies, determined scientifically, we must use standards built upon the best judgment and practice available," stated Harold F. Clark, Professor of Educational Finance, University of Indiana, in outlining "Budgetry Procedure in Respect to School



W. M. Davidson, Superintendent of Schools, Pittsburgh, who spoke on "Education and the Nation."

Systems" at section eight, for business managers.

"An absolutely independent board of education elected by the vote of the people is necessary for good school administration," according to H. L. Mills, Business Manager, Houston Public Schools, Houston, Texas.

In commenting on the influence of school supplies on class instruction, F. G. Bonser, Professor of Education, Teachers College, Columbia University, emphasized in some detail the necessity of the use of material equipment and supplies for six definite educational purposes, namely: To find and develop manipulative and constructive impulses and abilities; to clarify ideas and illustrate or reveal meanings; to develop investigative curiosity; to develop creative ability; to cultivate appreciation for the products of the world's work and for the world's workers; and to develop usefull techniques and skills in the activities of daily life. He insisted that none of these propositions can be realized by book instruction alone.

At the fourth general session Tuesday evening, the department held a joint meeting with the department of secondary-school principals. The topic "Supervision in the Secondary School" was discussed from the viewpoint of the principal, of the superintendent, and of the teacher. Cornelia S. Adair, Teacher, Bainbridge Junior High School, Richmond, Virginia, and President, National Education Association, in outlining supervision from the standpoint of the teacher, emphasized the teacher's need of inspirational leadership. "Encouragement and suggestions, together with helpful demonstrations, will build up a teaching morale worthy of the name," she stated.

At the fifth general session Wednesday morning, E. C. Hartwell, Superintendent of Schools, Buffalo, in commenting on the relation of the superintendent of schools to lay control, stated that as a group, superintendents believe that the schools should be professionally administered by men technically trained for the work. This theory frequently finds itself in conflict with selfish personal and political considerations, of which Chicago is a fitting example.

Mrs. Susan M. Dorsey, Superintendent of Schools, Los Angeles, outlined the relation of the public schools to higher education at the sixth general session Thursday morning. "The public schools and higher institutions have a common objective," said Mrs. Dorsey, "which is the acquiring and organizing of human knowledge for the purpose of conserving and increasing human excellence. Higher education must undertake a double task, instruction and reasearch, in order that new knowledge may be made available for the improvement and enrichment of life."

The seventh general session, Thursday afternoon in Mechanics Hall, was devoted to discussions of the relation of education to national and state governments. William M. Davidson, Superintendent of Schools, Pittsburgh, spoke on "Education and the Nation," and Beatrice Ensor, Editor, *The New Education*, London, England, outlined the development of progressive education in England. Following a tribute to the South and West by A. E. Winship, Editor, *Journal of Education*, Boston, who spoke on the debt of New England to these localities, the session was devoted to a business meeting.

"Aeronautical Education" and "Education in the Development of Aeronautics" were the subjects of papers by W. F. Durand, Member, National Advisory Council for Aeronautics, Stanford University, and William P. MacCracken, Assistant Secretary for Aeronautics, Department of Commerce, Washington, D. C., respectively, at the eighth and concluding general session, Thursday evening. These papers followed a concert by the Boston Public School Symphony Band, conducted by Fortunato Sordillo.

The guests of honor at this session were Col. Charles A. Lindbergh, and his mother, who received a life membership and emblem in the National Education Association, which was presented to her by Joseph M. Gwinn, president of the Department of Superintendence.

Secondary-School Principals' Meeting

The meetings of the National Association of Secondary-School Principals at the Hotel Statler, Boston, February 27-29, featured a comparison between education as found in Russia under the Soviet Republic and that in India under the British rule. This meeting also saw the National Association become the Department of Secondary-School Principals of the National Education Association.

George S. Counts, Associate Director of the International Institute, Teachers College, Columbia University, spoke on "The Educational Program of Soviet Russia" as found by him during a recent visit. He said, "Russia's program of education is most interesting at the present time. The small minority who engineered the revolution, having a vision of a new social scheme, has outlined the educational program to help attain that new social scheme. All educational institutions are under the commissariat of education except the home and church."

"Soviet education," he continued, "is divided into three great divisions; namely, social education, professional education, and political education. All this education, as well as other activities under the supervision of the commissiariat of education, are presented in a favorable light, that is, favorable to the idea of the revolution. As governed and influenced by the present rulers, the Russian people believe that the revolution was the beginning of their emancipation from drudgery and poverty."

Education for Classes in India

Contrasted with education in Russia, where the masses are being educated, India presents a much different aspect. Rajarem V. Gogate of Indore City, Central India, in presenting the "Problems of Education in India," declared that education as offered by the British government is only for classes and most of the Indian population is being neglected. Furthermore, English education does not train character, nor is it free and compulsory.

"Six problems are predominant in education in India," stated Mr. Gogate, "these are: (1) Organization of education for the masses; (2) reformation of the present day system of schools and education; (3) development of medical, pharmaceutical, and dental schools; (4) preservation of indigenous art, philosophy, etc., of India; (5) media of instruction in the Indian system of education; and (6) need of civic education—the turning out of citizens who can widen and improve community life."

The Tuesday morning meeting, devoted to the junior high school, featured "The Place of the Teacher in Curriculum Revision," by A. L. Threlkeld, Superintendent of Schools, Denver. "The teacher-pupil situation should be the focal point for any program of curriculum revision," he stated. "Looking at the revision from the viewpoint of the principal, supervisor, research expert, and the like, participating for the best possible pupil-learning situation, it is obvious that the most vital thing is the question of whether this course of study is genuinely accepted by the teacher as an important help in his teaching."

H. E. Warner, Principal, Hine Junior High School, Washington, D. C., stressed the need of every-day research by the teacher in order that she may understand the pupils and their needs.

The relationship between the principal and the specialist in the high school was the subject of a talk by Bancroft Beatley, Assistant Professor of Education, Harvard University. He emphasized the necessity for both to be on equal footing so that it would be possible for one to go to higher authority without going over the other's head. His plea was for co-operation rather than strife.

Edith M. Everett, Associate Director of the White-Williams Foundations, Philadelphia, declared that the place of the visiting teacher in the high school was to develop a well-integrated per-

Francis L. Bacon, Principal, Morton High School, Cicero, Ill., and president, National Association of Secondary-School Principals.

sonality in the individual child so that he could carry on in our rapidly changing civilization. "She is in the school to help insure that every child has equal chance to profit by the educational facilities offered," she stated.

In welcoming the National Association of Secondary-School Principals as it became the Department of Secondary-School Principals of the National Education Association, James W. Crabtree, secretary of the N.E.A., pointed out the factors that have made possible the outstanding success of both of these associations and he predicted that further success would be forthcoming since the two organizations with their high ideals and indefatigable workers will be co-operating to the greatest degree.

William McAndrew, former superintendent of schools, Chicago, was the outstanding speaker of the joint session with the department of superintendence, and spoke at length on high schools, superintendence, and school-teachers who do not like to be supervised. When he was introduced he received an ovation by the 8,000 educators in attendance.

Department of Rural Education Meeting

At the first session of the Department of Rural Education, Monday, February 27, the topic was "The Problem of Differentiating Rural Education" and was discussed from the standpoint of school administration, supervision, and the elementary-school course of study.

"In analyzing the administrative duties of the city school superintendent and the county school superintendent, we find that in some cases the duties are very similar and in others they are decidedly dissimilar," stated J. E. Butterworth, Professor of Education, Cornell University. "As we learn to meet effectively the administrative problems in rural and urban education, we may compare the elements in the two situations and know more exactly to what extent the problems are different. For these different positions some differentiation is desirable but the exact extent and nature will depend upon many factors.

"Too frequently professional workers have thought that only the city could offer worth while opportunities and rewards, but this is not the case, if one studies the rural field," he declared.

I. Jewell Simpson, Assistant State Superintendent in Charge of Elementary Education, Maryland, defined the necessary qualifications that any supervisor must have, and stated further those needed for a rural supervisor to be successful. "He must be sympathetic to country life and see the advantages that the country offers; he must needs give even more careful consideration to the matter of economy of time and effort than the city supervisor; he must find a method of co-operating with the rural teachers who, in many cases, are not trained to the same degree that city teachers are; and he must realize that most principals in rural schools are teaching principals and so must find his proper relationship with the principal under these conditions," it was stated.

Kate V. Wofford, County Superintendent of Schools, Laurens, S. C., who presided at the meeting of county superintendents.

"Only careful, thorough research can aid in answering the whole problem of the rural school curriculum," averred Helen Hay Heyl, Assistant in Rural Education, State Education Department, Albany, N. Y. "Among the issues noted there is need for: (1) Studies of activities as well as of interests and abilities of rural children at various stages of maturity; (2) experiments conducted in rural settings to determine immediate objectives; (3) special investigations to discover the best selection and organization of materials for all types of rural schools, especially one-teacher schools; (4) investigations to determine the most practical means of providing for individual differences in rural schools; and (5) studies to discover how best to combat, supplement, and utilize the environmental influences which rural life exerts upon the rural child's education."

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The second session, held Tuesday morning, featured a paper on "The Program of Studies in the Rural High School" by Emery N. Ferris, Professor of Rural Education, Cornell University. The program depends on the size of the school, the characteristics of the pupil population, and the environment of the school. "In the past," he said, "we have done but little in the rural high school to develop in pupils those interests and desires

Margaret M. Alltucker, Assistant Research Director, National Education Association.

that would lead them in using leisure time worthily, especially through those activities practicable for the average individual living in a rural community, but this situation is gradually changing."

Section meetings for State Supervisors and Inspectors of Rural Schools, County Superintendents and County Supervisors of Rural Schools, and Village and Consolidated School Principals were also held Wednesday morning. Problems and achievements in various states were outlined by the speakers and accomplishments of note were described.

The worth of the 4-H clubs, which have more than 600,000 members among the rural school boys and girls, was emphasized by A. C. True, Specialist in States Relation Work, U. S. Department of Agriculture, at the third general session. "Not only do these clubs deal with the improvement of agriculture and farm home life, but they do this in such a way that the individual boys and girls are benefited and improved mentally and socially," he announced.

Continuing on the same subject, Dr. Fannie W. Dunn, Professor of Education, Teachers College, Columbia University, raised the questions of what the aims should be and who should direct the work when the 4-H clubs included all of the 11,000,000 rural boys and girls, from ten to twenty years of age, instead of only the present 600,000.

Elementary-School Principals' Meeting

The Department of Elementary-School Principals, under the presidency of Arthur S. Gist, held two interesting sessions at Boston, February 28-29. Greetings from the National Education Association were conveyed by Cornelia S. Adair, president.

Margaret M. Alltucker, Assistant Research Director, N.E.A., outlined the relation between the principal and the curriculum and stated "that a leader must lead and not permit those under his supervision to do any less than their best."

Recently returned from a 12,000 mile trip throughout the country, J. R. McGaughy, Teachers College, Columbia University, spoke on the newer tendencies in supervision that he noted. He outlined two tendencies of the organization of supervision: (1) The time has come to connect supervisors to the superintendents of schools as a staff officer but not to offer him authority over the teachers, being rather a friend to them; and (2) special subject supervisors should also be a part of the superintendent's staff as well as the general supervisors.

In commenting on the growth of principals in service from the viewpoint of the professional institution, J. C. Almack, Stanford University, stated that the improvement of the principals depends on co-operation, and that valuable factors in improving the principals are the school survey, research, publications, and university teaching. His stand on university teaching was strengthened by L. F. Banks, Assistant Superintendent of Schools, Birmingham, Ala., who stated that "growth comes from food and exercise, and universities offer food for the principal's growth."

In treating supervisory problems at the Wednesday afternoon meeting, A. L. Threlkeld, Superintendent of Schools, Denver, stated that in order for supervision to be a complete success it is necessary for it to be recognized by the teacher as something that is identifiable with his own interest. Only in this case will the teacher seek the

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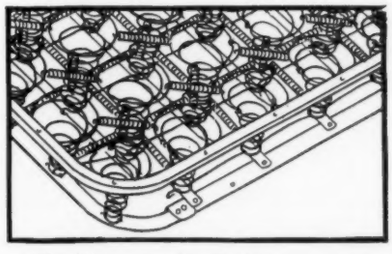

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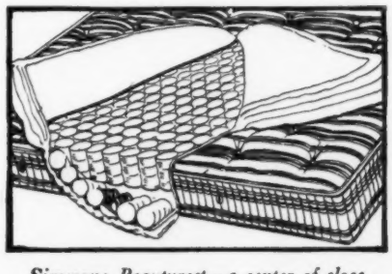

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Avery W. Skinner, State Department of Education, N. Y., and president National Association of High-School Supervisors.

N. L. Engelhardt, Professor of Education, Teachers College, Columbia University, who spoke on "School Administration."

supervisor and thus make a success of supervision.

"Supervision is simply putting into practice the principles of teaching, knowing when a teacher sees or doesn't see them, and giving constructive criticism, which is so essential in the better methods of instruction," declared Eva G. Pinkston, Principal, Cumberland School, Dallas, Texas, in concluding the statements on the evaluation of supervision.

Conference of National Vocational Guidance Association

All phases of the work of helping boys and girls to prepare themselves for the careers for which they are best fitted were discussed at the annual conference of the National Vocational Guidance Association, February 23-25, in Boston, which marked the twentieth anniversary of the vocational guidance movement.

Under the leadership of A. H. Edgerton of the University of Wisconsin, the three-day conference stressed the advance that has been made in the vocational guidance movement since the inception of the idea.

Following a get-together luncheon at the Hotel Statler, Dr. Jeremiah E. Burke, Superintendent of Public Schools, Boston, greeted the delegates with a description of the history of popular education in that city.

Dr. Edgerton spoke on "A Critical Analysis of Existing Guidance Services and Techniques." He admitted that there has been much ineffectual work done in vocational guidance which the enemies of the movement have noted, but declared that such failures were due to the use of unscientific and out-of-date methods which have long since been abandoned by the leaders in the work.

Salient trends in vocational factors were discussed from various angles by Emily G. Palmer, Lecturer in Education, University of California; Mildred E. Lincoln, Counselor, Monroe High School, Rochester, N. Y.; R. O. Small, State Director of Vocational Education of Massachusetts, Boston; and Susan J. Ginn, Director of Vocational Guidance, Boston.

Friday morning was devoted to industrial visits and at each industrial concern visited the work was explained in detail to the visitors by an official of the company. Round table discussions on occupational research, counseling, placement and follow-up, values in cumulative individual records, guidance problems in continuation schools, and exploratory courses brought out interesting viewpoints during the Friday afternoon session.

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John K. Norton, director of research, National Education Association, who presided over Educational Research Association meetings.

that of vocational guidance in colleges, featured the afternoon session on Saturday. Statistics of occupations in which students show interest and those occupations which they finally enter were summarized to show various trends. Methods of giving information about occupations also received considerable attention.

Dr. Mary H. Hayes of New York was elected president; Dr. W. M. Proctor of California, first vice president; C. C. Robinson of New York, second vice president; Emma Prichard Cooley of New Orleans, secretary; and Bertha Shepherd of Boston, treasurer. John Stark of Pittsburgh and Leona Buchwald of Baltimore were elected trustees.

Walter E. Ranger, State Commissioner of Education, Rhode Island, who presided over the National Council of State Superintendents and Commissioners of Education.

Vocational Education Department Meeting

Dr. Robert O. Small, Director of the Division of Vocational Education of the State of Massachusetts together with his associate officers, presented one of the best programs ever undertaken by the Vocational Division of the National Education Association, at the fifty-eighth annual meeting of the Department of Superintendence in Boston, February 28-29. Meetings held simultaneously in various parts of the city on Tuesday morning included agricultural education, continuation schools, evening practical arts, co-operative part-time education and industrial education, industrial education for girls, and vocational home making. On Tuesday afternoon a general meeting upon the topic of Vocational Education was held in the auditorium of the Boston Trade School.

Present Interesting Discussions

All of the addresses were interesting and the audiences were very enthusiastic, speeches frequently being followed by general discussion and questions.

Susan M. Dorsey, Superintendent of Schools, Los Angeles, spoke upon the topic of Vocational Training for Girls for Industry. This address was given in the Boston Trade School for Girls, Tuesday morning. In speaking of the Frank Wiggins Trade School of Los Angeles, she stated that girls were offered equal opportunities with boys for training for vocational employment. The work of girls started with power machine sewing. This course has developed until it is now preparing practically all of the women in that city for this vocation. Fifteen different trades are offered, including alterations of garments, beauty culture, bindery operation, commercial art, cooking, dressmaking, elevator operation, linotype and monotype, millinery, power sewing, pressing, and spotting, switch board operation, and telegraphy. She stated that many of the graduates had eventually gone into business for themselves. Many women returned to the school "for rehabilitation when the exigencies of life made the return to self-support necessary."

Elizabeth W. Burbank, Director of the Girls' Trade School, Worcester, Mass., stated that Providence had two classes, Bridgeport had started trade work for girls, Lowell and New Bedford

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By JULIAN BUTTERWORTH, *Professor of Rural Education, Cornell University.*

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Here is a new book that will help you answer this question

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It gives all the information needed to make a preliminary choice from the 325 most important colleges in the country. It explains the advantages of going to college; the types of boys and girls who are likely to benefit by college and those who are not; the new admission requirements and methods. A most valuable feature is the brief description of each college giving location size, endowment, equipment, degrees conferred, scholarships, opportunities for self-help, etc.

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A practical book that takes up the various problems and situations which confront the superintendent. It offers aid in the same way that a case book aids the lawyer—by presenting actual cases. A practical bibliography concludes each section.

In Press

AN ADVENTURE WITH CHILDREN

By MARY H. LEWIS, *Principal, The Park School, Cleveland, Ohio.*

An informal description of the author's experimental school of the freer, more progressive type. This project earned the keen interest of Dr. John Dewey who considers it an outstanding educational experiment. It wa was in reality a *children's* school. Price $1.50

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Thomas E. Benner, Chancellor, University of Porto Rico, Rio Piedras, who addressed the Department on Inter-American Ideals.

N. Searle Light, State Board of Education, Connecticut, who presided over the meetings of the Department of Rural Education.

were undertaking definite vocational courses, and that the Boston and Worcester trade schools for girls had been operating long enough to demonstrate "both desirability of training, and the need for it."

Nine Million Women Workers

Mrs. Mary S. Woolman, Specialist of Vocational Education in Boston, Mass., stated that nine million women and girls are employed in industrial, commercial, mechanical, and professional positions in the United States.

Mrs. John Finlay described the evening practical arts work of the Boston schools and its advantages.

Prof. W. H. Timbie of Massachusetts Institute of Technology, in speaking before the part-time section, stated that eighteen engineering schools are operating co-operative courses with over five thousand pupils enrolled, resulting in theoretical instruction being vitalized by actual experience upon the job, upon the part of the pupil.

Director James Forbes of the part-time schools of Southbridge, Massachusetts, declared that for the boy preparing for a trade, part-time co-operative education offered a most satisfactory medium for his development, the boy receiving first-hand information through his industrial contacts. He learns of the industry's demands upon him, and is brought into definite contact with his prospective employer.

Wesley A. O'Leary, Director of Vocational Education, State Department of Education, Trenton, N. J., before the industrial education section in discussing the topic, "Training Workers for Industry," outlined the New Jersey plan of county educational units for vocational training. This policy makes it possible to establish a large vocational training center for each county, thus enabling the worker in a small town to receive the full benefits of a satisfactory training in a modern well-equipped school.

Educators Can Learn from Industry

Egbert E. McNary, Director of Training of Continental Baking Corporation, stated that educators could learn as much from industry as they impart to it, and they were not only serving boys through vocational training, but were serving the entire industrial community. He emphasized that one of the biggest needs of industry was salesmanship, since the product demanded not only skilled workers to make it, but skilled men to sell it, but that teaching and selling were synonymous.

H. L. Briggs, Director of Vocational and Practical Arts Education for the Cleveland Public Schools, presented two reels of motion pictures

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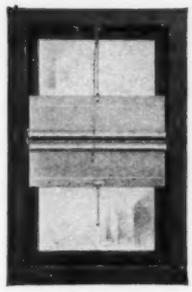

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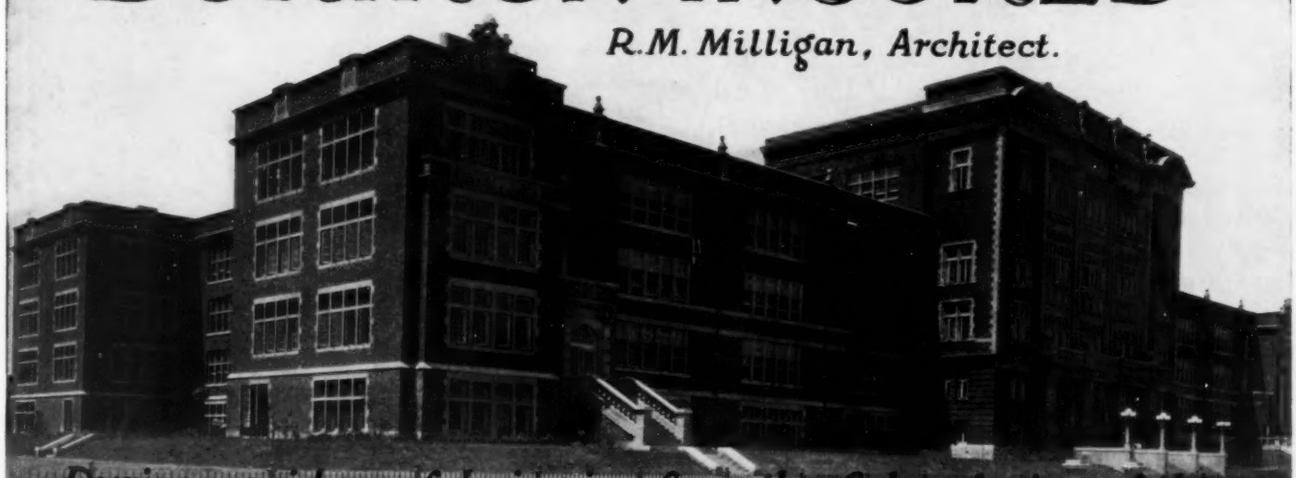

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H. L. Smith, Dean, School of Education, University of Indiana, and president of the National Council of Education.

wherein all of the activities of the Cleveland Trade School were pictured. He explained that Cleveland had developed its vocational training program upon a business basis, that it had first analyzed the needs of the community, secondly determined the type of boy available for training and set up a selective procedure, and, thirdly had organized its training plant to co-ordinate the raw material available with the market needs. He stated that all the trade work was offered upon a part-time basis during working hours with the apprentice receiving pay for his time of school attendance and that the training for each trade was under the guidance of an advisory committee, consisting of employer and employee representatives. He stated that all bricklayer, carpenter, plumber, electrician, painter, paperhanger, and stone cutter apprentices were attending school four hours per week throughout their four years of apprenticeship, and that a large percentage of the auto mechanics and machinist apprentices in the community were attending the Trade School upon a similar basis, preceded by one year of pre-apprentice training.

John C. Brodhead, Assistant Superintendent of Schools of Boston, spoke of the co-operative industrial courses in agriculture, machine shop, sheet metal, automobile mechanics, woodworking, and electricity offered in seven of the composite high schools, wherein alternate weeks were spent in school and in industry. He emphasized teachers' supervision in industry, and the fact that part-time training made the entrance into final employment much easier.

Edward C. Emerson, Associate Director of Manual Arts in Boston Public Schools, stated "a student who wishes to take his place in industry is better trained for a mechanic in the shop, as while he is under the school jurisdiction he has actual contacts with the problems which can be obtained only through actual work in commercial shops."

Dr. J. C. Wright, Director of Federal Board for Vocational Education, in summarizing the meeting covering the training of workers for industry, stated that the federal board was now co-operating in the training of over one million workers. He stated how various organizations, such as the laundry owners and retail grocery association, were co-operating with the federal board in promoting training in their respective fields. He emphasized the need for co-operation with employers whereby vocational training was undertaken. He stated that no program could be successful without such co-operation.

Wednesday morning the group visited the Massachusetts Institute of Technology, Cambridge, and were luncheon guests at that institution.

Beatrice Ensor, Editor, The New Education, London, who spoke on "Progressive Education in England."

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News of the Month

Educational Press Association Holds Boston Luncheon

A most enjoyable luncheon was held by the Educational Press Association of America, Tuesday, February 28, at the University Club, Boston. There was present an excellent representation of the various state journals and other magazines serving the educational field and the meeting was presided over by J. Herbert Kelley, president of the association.

The main speaker on the program was Rollo G. Reynolds, former Provost of Teachers College, Columbia University, who has recently accepted the principalship of the Horace Mann School, New York. Mr. Reynolds spoke upon the topic "The Educational Press, Interpreters of American Education," and urged those present to do everything in their power to publicize education in all its forms. A. E. Winship, Editor, *The Journal of Education*, took the opposite view and earnestly hoped that the editors present would devote their attention toward betterment of schools and leave the publicity entirely alone.

Joy Elmer Morgan, Editor, *The Journal of the National Educational Association*, made a report of the Committee on Standards, but no conclusion was reached as to the possible change to a standard size by the various state journals.

Various members present entered into a symposium on their best creative idea of the year, and the report of the treasurer, Ernest T. Cameron of Lansing, Mich., was heard.

For the ensuing year James F. Hosic, Editor, *The Journal of Educational Method*, was elected president.

Committee Formulates Resolutions at Boston Meeting

The resolutions committee of the Department of Superintendence of the National Education Association offered a number of interesting and illuminating resolutions at the recent Boston meeting. In abstract they were as follows:

Urged the passage of the Curtis-Reed bill for a department of education and a secretaryship in the President's cabinet.

Urged the further emphasis of character education with especial stress on the professional study of this problem.

Urged the development of better educational opportunities, with all proposed expansion of facilities carefully studied.

Commended the trend toward more intelligent guidance in school house planning.

Urged the development of effective publicity methods to lessen the gap between various educational viewpoints.

Denounced the exploitation of schools by the spoils system of partisan politics.

Warned against the danger of curriculum making by the state legislatures.

Urged equal educational advantages for urban and rural school children, and recommended that definite steps be taken to make an appreciable approach to such equalization.

Urged higher standards for admission to American citizenship.

Recommended considering the practicability of appointing a committee to study the problem of perfecting an organization which will prepare and broadcast educational programs for school use.

Extended cordial appreciation of the Department of Superintendence to the various individuals and organizations that gave so effectively of their best efforts in Boston.

The resolutions committee consisted of the following educators:

A. L. Threlkeld, Superintendent of Schools, Denver, Chairman.

J. R. Barton, Superintendent of Schools, Oklahoma City.

Commissioner A. B. Meredith, State Department of Education, Hartford, Conn.

Charles L. Spain, Deputy Superintendent of Schools, Detroit.

Estaline Wilson, Assistant Superintendent of Schools, Toledo.

Dr. John W. Withers, Dean, School of Education, New York University.

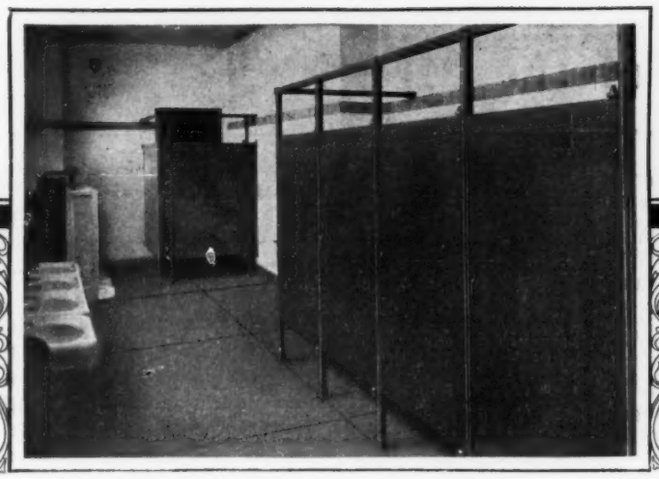
Ada York, Superintendent of Schools, San Diego County, Calif.

Bureau of Education Appoints School Building Specialist

The Bureau of Education, Department of the Interior, has just announced the appointment of Miss Alice Barrows as specialist in school buildings in the City Schools Division. The bureau is undertaking a study of the school building situation in 100 representative cities.

Miss Barrows was appointed as a result of a general demand existing in educational circles throughout the country for information regarding school building surveys. She was formerly specialist in city school systems and in that capacity she gave much of her time to a study of the platoon plan of school organization. She has conducted some twenty school building surveys during the past six years, the most recent being the school building survey of the Portland, Ore., schools. The fifteen-year building program recommended by the survey was adopted by the board of education of that city and is now being carried on.

The Bureau of Education is now undertaking an exhaustive study of the school building situation in 100 of the leading cities of the country, covering such points as



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Veneer-Steel Partitions

News of the Month

the amount of school congestion, the educational facilities provided, the type of modern elementary, junior high-school, and high-school building being provided, with cost of same. This is the first time such a comprehensive study of the school building situation has been undertaken.

Miss Barrows was graduated from Vassar and was a Fellow of Columbia University. She was a teacher in elementary schools and high schools and an instructor at Vassar. After leaving Vassar, she specialized in educational and social surveys, including surveys of school buildings.

Secondary-School Principals Elect Officers

J. Stevens Kadesch, headmaster of the Medford High School, Medford, Mass., was elected president of the National Association of Secondary-School Principals at the business meeting of that organization during the sessions of the Boston meeting of National Education Association. Truman G. Reed, principal of the Central Intermediate High School, Wichita, Kan., was elected first vice-president, and William Ferdinand Ewing, principal of the High School and Junior College, Pasadena, Calif., was named second vice-president.

The new members of the executive committee are Galen Jones, principal of the Port Arthur High School, Port Arthur, Tex., and E. H. Kemper McComb, principal of the Emmerich Manual Trade High School, Indianapolis.

University of Chicago Plans Summer-School Courses

The University of Chicago School of Education has planned the summer quarter of 1928 with special reference to graduate students. An unusual series of courses has been arranged for superintendents and high-school and elementary-school principals, to be given in part by regular members of the faculty and visiting instructors, including: J. M. Gwinn, superintendent of schools, San Francisco; T. W. Gosling, superintendent of schools, Madison, Wis.; W. W. Beatty, superintendent of schools, Bronxville, N. Y.; and J. L. Bracken, superintendent of schools, Clayton, Mo., and extension lecturer at Washington University.

Courses in the supervision of secondary schools and in the curriculum of junior and senior high schools will be given by Prof. E. N. Ferris, Cornell University, and Associate Prof. H. H. Ryan, University of Michigan.

The regular courses in educational psychology will be supplemented during the second term by courses dealing with psychopathic, retarded, and mentally defective children and mental hygiene, given by Associate Prof. W. E. Blatz, director, St. George's School for Child Study, University of Toronto. Assistant Prof. H. Y. McClusky, University of Michigan, and Associate Prof. E. D. MacPhee, University of Toronto, will give courses in the psychology of learning and in mental tests.

Gain Practical Experience in Retail Selling

The Omaha Technical High School trains its pupils in retail selling through laboratory periods in the stores of the cities, and gives preliminary courses to younger pupils in model stores on the school property, according to the Special Specialist in Retail Store Training for the Federal Board of Vocational Education, Isabel Craig Bacon.

The pupil works in a store without pay for three hours each day during the first three months of his course, Miss Bacon says. She states that each year the president of the Associated Retailers of Omaha appoints a committee to work jointly with the school in carrying on the courses.

The Omaha Technical High School for the last seven years has maintained a department of retail selling. This is open to pupils in the junior year in school who have shown by their scholarship and citizenship, as well as their personality and interest, their ability to do this type of work. The pupils in the salesmanship classes report at the school in the morning for four periods every day, and then, after having their lunch, report to their respective stores, where the remainder of the day is spent in gaining actual store experience, for which school credit is given on the same basis as for a laboratory subject.

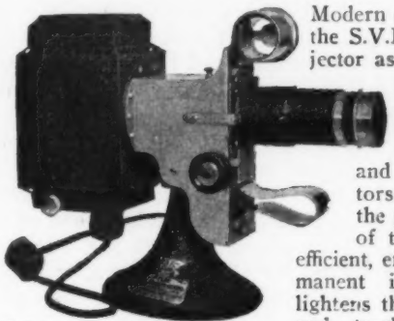
University of Wisconsin Announces Summer-School Faculty

Forty-two visiting lecturers and 242 members of the regular faculty have been engaged as members of the 1928 summer-school faculty of the University of Wisconsin, Director Scott H. Goodnight has announced. The visiting lecturers are:

In education—Grace L. Aldrich, school librarian, Elizabeth, N. J.; Dr. Harry J. Baker, clinical psychologist, Detroit Public Schools; Dr. William F. Book, University of Indiana; Essie Chamberlain, Oak Park High School, Oak Park, Ill.; Dr. Joel S. Georges, University of Chicago High School; Joseph T. Giles, supervisor of high schools, Wisconsin Department of Public Instruction; Dr. Emil D. Grizzell, University of Pennsylvania; Delia E. Kibbe, Wisconsin Department of Public Instruction; Elma A. Neal, director of elementary education, San Antonio, Tex.; Julia Oppen, American Child Health Association, New York; Dr. Worth J. Osburn, supervisor of high schools, Wisconsin Department of Public Instruction; Oswald H. Plenzke, assistant state superintendent, Wisconsin; Margaret K. Roberts, supervisor of grades, Fond du Lac Public Schools, Fond du Lac, Wis.; Clay D. Slinker, director of business education, Des Moines Public Schools, Des Moines, Iowa; Dr. William W. Theisen, assistant superintendent of schools, Milwaukee; and Dr. Richard B. Thiel, Lawrence College, Appleton, Wis.

In industrial education—Elizabeth M. Finstad, Madison Public Schools, Madison, Wis.; Alexander R. Graham, director, Madison Vocational Schools; Regina E. Groves, Madison Vocational Schools; Thomas A. Hippaka, supervisor of manual arts, Madison Public Schools; Robert H. Rodgers, chief, division of teacher-training and research,

Teach By Pictures



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News of the Month

Milwaukee Vocational School; and Hans W. Schmidt, Wisconsin state supervisor of high schools and manual arts.

In speech—Frank Rarig, University of Minnesota; Lousene Rousseau, New York City; Mrs. Ottilie Seyboldt, Grinnell College; Joseph F. Smith, University of Utah; and Nicholas J. Weiss, Albion College.

In physical education—Edith A. Boys, University of Texas; Geneva G. Watson, Kansas State Agricultural College; and Walter J. Wittich, La Crosse.

In vocational education—Harry C. Thayer and Dr. Jennie M. Turner, Wisconsin State Board of Vocational Education.

In English—Dr. Beverly S. Allen, New York University.

In home economics—Elizabeth Amery, Maryland State Department of Education.

In law—Dr. Freese N. Baker, Louisiana State University.

In classics—Marie B. Denneen, North Carolina College for Women, and John D. Ralph, University of Western Ontario.

In history—Dr. Arthur C. Cole, Ohio State University.

In sociology—Dr. Charles A. Ellwood, University of Missouri.

In topographical engineering—Elmer L. Hain, U. S. Geological Survey.

In German—Dr. John Whyte, College of the City of New York.

In music—Theodore Winkler, Sheboygan Public Schools, Sheboygan, Wis.

Boston University Honors President D. L. Marsh

At the Boston University annual National Education Association dinner under the auspices of the school of education, Mrs. Everett O. Fiske, trustee of the University, presented a certificate of life membership in the National Education Association to Daniel L. Marsh, president of the University.

In conferring the certificate on President Marsh, Mrs. Fiske outlined his achievements in his two years as president of Boston University and his talent and interest in other directions. Dr. Marsh is the first college president in New England to be so honored.

Maine Undertakes State-Wide Educational Survey

A state-wide survey to determine the needs of higher education in Maine for the next ten years, and the formulation of methods by which these needs can be met are being planned in connection with the 1928 program of the Maine Development Commission. It is expected that two years will be required for the completion of the survey and the preparation of a program, the purpose of which is the placing of Maine in the educational forefront of the eastern states.

The survey will be supervised by a committee composed chiefly of educators. The work will be financed and carried on under the leadership of the University of Maine, as one of the four educational centers of the state. The other three co-operating colleges will be Bowdoin, at Brunswick; Colby, at Waterville; and Bates, at Lewiston. Present plans will call for the engagement of a Columbia University man as consulting expert.

The survey is being undertaken at the request of the Maine Development Commission, by the University of Maine, which has assumed responsibility for its success. The need for women's colleges in the state is one of the recognized major problems to be attacked, special attention being given to the matter of adequate endowment of such institutions, probably from sources other than state funds.

Plan Behavior Problem Study of New York Girls

A committee to study behavior problems of girls in public schools of New York City has been appointed by the superintendent of schools, with a view to the establishment of a probationary school for delinquent girls, it was stated orally February 2, at the Bureau of Education, Department of the Interior.

The committee is composed of women members of the supervising and teaching staffs of city schools.

Student Ratio Remains Constant at Land-Grant Colleges

The ratio of approximately seven men to three women in enrollments of resident students at land-grant colleges for white students has remained fairly constant for the past eight years, according to the Bureau of Education, Department of the Interior. Since 1920 a gain in the percentage of students is shown in all courses except engineering, with professional education showing the greatest advance.

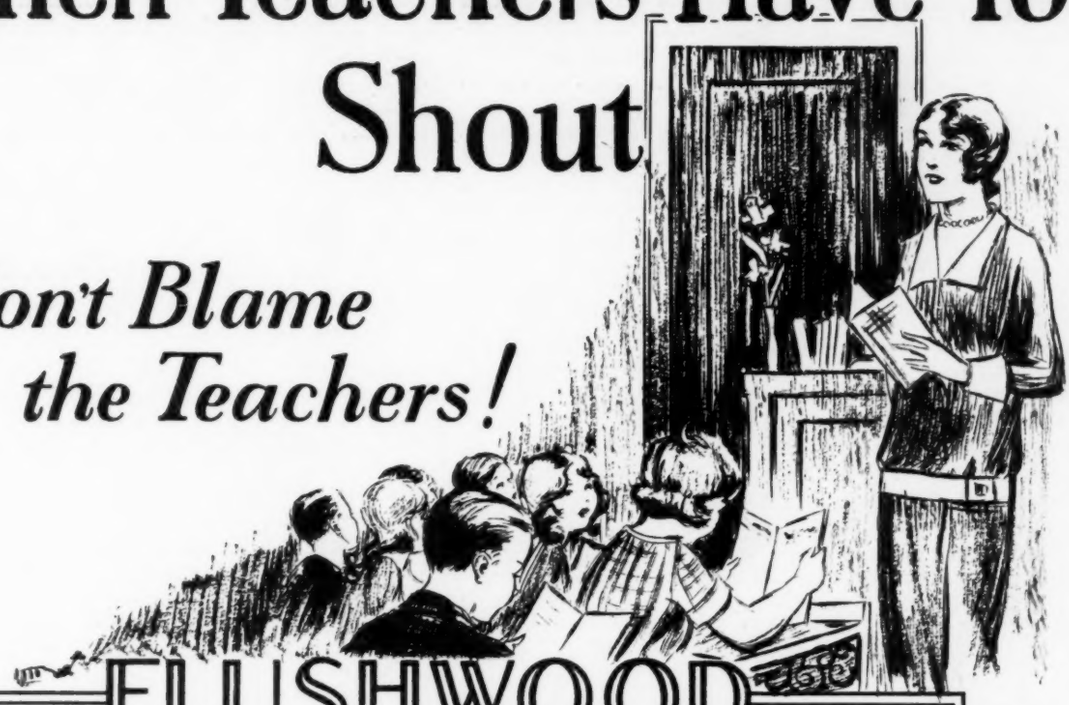
A total of 142,779 resident students were enrolled during 1925-26 in fifty-two land-grant colleges of the United States. These figures do not include enrollments in the seventeen colleges conducted exclusively for negroes.

The data, which were collected by Dr. Walter J. Greenleaf, associate specialist in land-grant college statistics, show that approximately one-fifth of all the resident college students in the country are attending these institutions. Of this total enrollment, 97,881 were under-graduate men students and 44,898 under-graduate women students.

Enrollments of men have increased gradually since 1912, interrupted only by the World War, but afterwards increasing at an unparalleled rate. Before the war engineering and agriculture were chosen by a large percentage of male students, but recently other subjects including arts and science, commerce and business, and miscellaneous courses have attracted a large per cent of men. Present enrollments, therefore, show only forty-three per cent in agriculture and engineering. Agriculture and engineer-

When Teachers Have To Shout

Don't Blame the Teachers!



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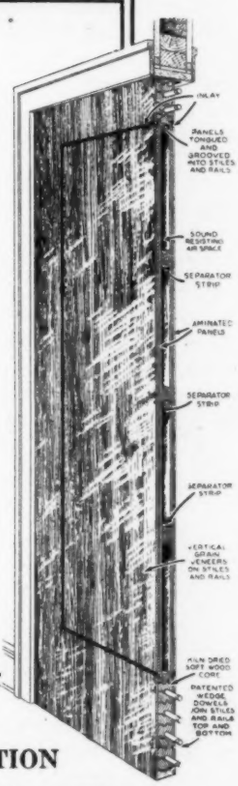
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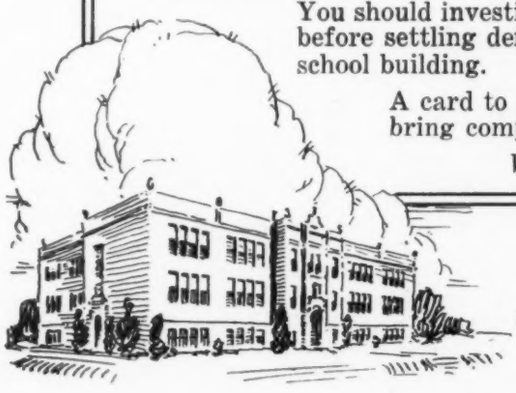

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News of the Month

ing are specially mentioned since the leading object of the land-grant college is to teach such branches of learning as are related to agriculture and the mechanic arts. Of the under-graduate men, 29,182 elected engineering and 12,957 elected agriculture.

Enrollments of women, which before the war increased very slowly, have since grown at an unprecedented rate. In 1926, 44,898 women were resident under-graduates, of whom 7,500 elected home economics. Home economics courses, however, have not kept pace with the general increased attendance of women at the colleges.

Of all men and women under-graduates in 1925-26, thirty-four per cent elected arts and sciences, twenty-one per cent engineering, nine per cent agriculture, nine per cent commerce and business, eight per cent education, six per cent law, medicine and dentistry, five per cent home economics, and eight per cent miscellaneous courses. Since 1920 a gain in percentage of students is shown in all courses except engineering, which lost six per cent, agriculture which lost five per cent, and home economics, which lost two per cent. Professional education shows the greatest gain, five per cent—8,646 students—while arts and sciences gained two per cent—12,742 students.

Enrollments in agriculture courses in 1915-17 were at their height, but the World War and the depression of 1921 affected attendance so that the number of students electing agriculture has declined. Since agriculture economic conditions at the time of college entrance are often a determining factor with students in the election or rejection of an agricultural career, it is expected in the future that enrollments will be stabilized and fewer students will be lost to agriculture. Electrical engineering has become the most popular of the engineering courses with 8,697 students registered. In the summer sessions more women than men are enrolled—35,285 women and 27,179 men in 1925.

Of the 14,470 first degrees conferred on men in 1926, 4,026 were awarded in engineering, 3,053 in arts and sciences, 2,054 in agriculture, 1,409 in commerce and business, 820 in medicine, 742 in education, 608 in law, 584 in pharmacy, 364 in dentistry, 144 in forestry, 109 in veterinary science, and the remainder in miscellaneous courses. Of the 6,791 first degrees conferred on women in 1926, 3,194 were awarded in arts and sciences, 1,429 in education, 1,245 in home economics, 173 in commerce and business, seventy-three in agriculture, and the remainder in miscellaneous courses.

Manitoba Meets Educational Needs of Province

Every fourth person in the Province of Manitoba, Canada, is studying, the Bureau of Education, Department of the Interior, stated orally on February 11. Correspondence instruction has been established for families in remote sections of the Province.

To meet educational needs of families living in remote parts of Manitoba, and of children unable on account of physical handicap to attend school, a system of correspondence instruction has been inaugurated by the provincial department of education. It is estimated that about every fourth person in the Province of Manitoba is seeking by study to reach a higher educational standard.

In Saskatchewan, where an outpost's correspondence course has been maintained for two and a half years, enrollment has reached 247. It is believed that about twenty per cent of the students are of foreign extraction.

Cornelia S. Adair Receives Singular Honors

Cornelia S. Adair, president of the National Education Association, was the recipient of two singular honors at the recent Boston meeting of the Department of Superintendence of the National Education Association. The degree of G.L. (Gracious Lady) was conferred by the Massachusetts Teachers Federation at a luncheon at the Copley Plaza Hotel, and George Hale Nutting presented the Washington and Franklin medal for excellence in the study of U. S. history to her for the Massachusetts Society of the Sons of the American Revolution at the same gathering.

Cuban Schools Provide for Radio Instruction

Materials for the construction of radio receiving sets will be provided all centers of learning in Cuba, that pupils throughout the country may receive the benefit of a series of popular lectures to be broadcast from the ministry of public instruction, the Bureau of Education, Department of the Interior, stated orally on February 16. The distribution will include all centers "from the University of Havana to the smallest school," it was said. The receiving set for each school will be made by the pupils of the school. According to the bureau, the subjects to be presented in the lectures will include agriculture, industry, commerce, science, literature, and civic questions.

Pennsylvania Protects Pupils Against Small Pox

A careful inspection of sixty-seven schools of the fourth-class district in Pennsylvania during the last thirty days shows a most satisfactory record relative to vaccination, according to Col. James Duffy, Chief of the Bureau of Inspection. Col. Duffy said, "The vaccination law, so far as school children are concerned, is efficiently functioning. An investigation which covered many schools in which 250 children were reported by school medical inspectors as having been unsuccessfully vaccinated, indicated that all of these children were now either successfully re-vaccinated or had permanent or temporary vaccination certificates. This shows that with the co-operation of the teachers, parents, school medical inspectors, the medical profession, and the state and local health departments, school children are being protected against small pox successfully."

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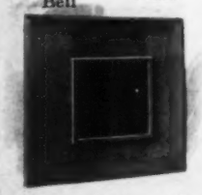

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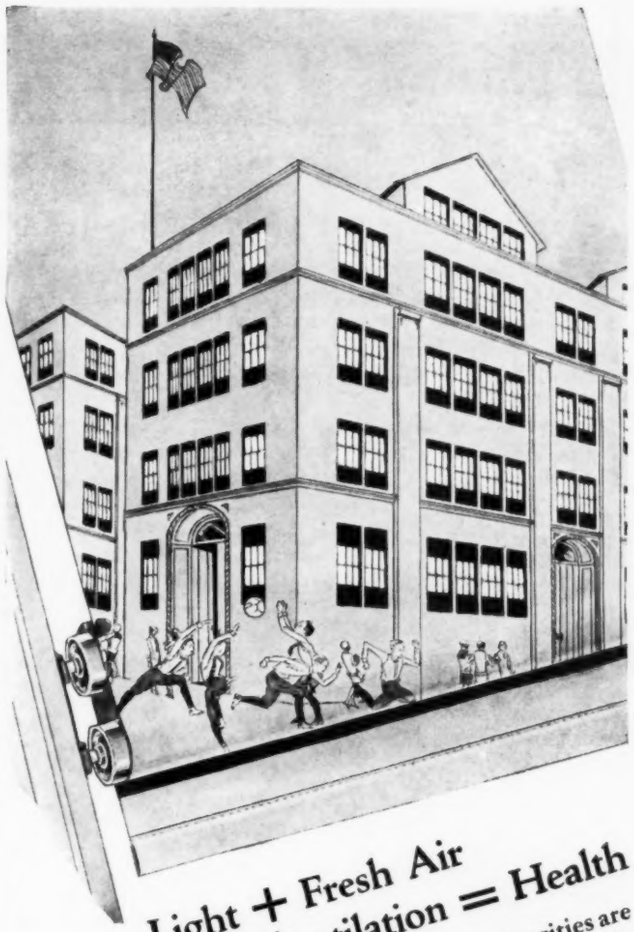

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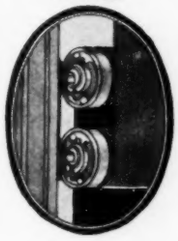

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News of the Month

Annual Educational Exposition of Oregon High Schools

Following up the theme of vocational and educational guidance upon which the conferences of the past few years have been focused, the annual Educational Exposition at Oregon State Agricultural College, February 17-18, attracted to the campus at Corvallis representatives from more than 175 high schools of the state, a total of more than 600 faculty and student delegates.

Two general assemblies, supplemented by separate conference gatherings for men and women, as well as a special conference for faculty delegates, brought out many of the essential principles of vocational guidance as used in progressive secondary and higher schools to-day, and resulted in the selection of a state-wide council for directing the ensuing educational guidance programs of the exposition.

Dr. James C. DeVoss, professor of psychology and director of research, San Jose Teachers College, San Jose, Calif., was the conference leader and principal speaker from outside the state.

Military Schools Hold Annual Meeting in Chicago

The fifteenth annual meeting of the Association of Military Colleges and Schools of the United States was held at the Union League Club, Chicago, on February 15-16. This is the first time that the association has met outside of Washington, D. C., but the attendance justified the change and the success of the meeting was considered by many to be even greater than previous meetings held in the national capitol.

The opening session was called to order by the president, Brigadier-General L. R. Gignilliat, Culver Military Academy, Culver, Ind., and the address of welcome was given by Col. Harry D. Abells, Superintendent of the Morgan Park Military Academy, Morgan Park, Ill. The report of the Committee on Co-operative Advertising and Publicity was made by Brigadier-General Milton F. Davis, Superintendent of the New York Military Academy, Cornwall, N. Y., and the first paper of the morning, entitled "The Educational Opportunities of the Military Schools," prepared by Prof. M. V. O'Shea of the Department of Education, University of Wisconsin, was read by Col. C. C. Chambers, Culver Military Academy, Culver, Ind. A general discussion followed the paper and adjournment was taken at twelve-thirty for luncheon.

In the afternoon Lieut.-Col. F. L. Hunt, Culver Military Academy, presented a paper entitled, "Stimulation of Academic Interest," and Prof. Thomas Arkle Clark, Dean of Men, University of Illinois, presented the subject "The Military School Graduate in College." The last paper of the afternoon was "Co-ordination of Academic, Military, and Athletic Activities," by Col. T. D. Landon, Principal, Bordentown Military Institute, Bordentown, N. J.

An excellent program was presented at the annual banquet at which General Gignilliat presided and Captain Norman A. Imrie acted as toastmaster. Dr. Charles A. Plumley, President, Norwich University, Northfield, Vt., told of the "Ideals of the Military School," and Fielding H. Yost, Director of Athletics, University of Michigan, spoke on "Athletics as a Character Builder." James Weber Linn, Professor of English, University of Chicago, spoke on "The Division of Responsibility," and the last speaker of the evening was Major-General William Lassiter of the United States Army, who told of the benefits of the R. O. T. C. and national defense.

The Thursday morning program was given over to a report of the Committee on Academic Standing, a paper by Prof. George R. Moon, University of Chicago, on "Mental and Academic Tests," and the meeting was adjourned for luncheon at the University Club. "R. O. T. C. Policies," by Lieut.-Col. G. A. Lynch of the War Department, a round table discussion led by Col. I. A. Cunningham, Columbia Military Academy, Columbia, Tenn., and the reports of two committees brought the meeting to a close.

Chicago Schools Begin Competition on Plans for Homes

Special emphasis is being placed on courses in architectural drawing in the senior high schools of Chicago, according to Albert G. Bauersfeld, director of technical work in the high schools. The interest of the pupils is being aroused by competitions in each school, at the close of which there will be a general competition among all the schools. In order that each high school may receive the benefit of the increasing emphasis on architectural drawing, a preliminary exhibition will be developed in which each entry will be mounted in the school corridor. Prominent architects will judge the entries and awards will be given.

The drawings shown in the general competition will be exhibited in the administrative building of the board of education and final awards will be given for the three best entries in each of the four following divisions:

Class A. A complete set of competitive drawings for a six-room house to be prepared by senior pupils taking architectural drawing.

Class B. A complete set of competitive drawings for a five-room bungalow to be prepared by junior pupils.

Class C. Competitive drawings of building details to be prepared by sophomore and freshman pupils.

Class D. Competitive drawings on the renderings of the classical architectural orders by junior pupils who are specializing in this particular field.

Boston to Abandon "Skeleton" Type School Walls

The "skeleton" type wall is to be removed from school building specifications in Boston due to the condemnation of the type by the committee of experts of the board of education, and this type of construction will be changed wherever possible in all school buildings now being erected, according to a recent announcement by the acting chief architect of the board. However, most of these projects have passed the point where major changes might be made.

A Wonderful Finish *for* School Desks!

Permanently Water-Proof Practically Scratch-Proof

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Scratch it in any way that could be possible under ordinary school usage—
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With this new National Tannic Acid Finish, the tannic acid in the wood is brought to the surface, bringing with it the natural color of the wood. The finish is developed within the wood fibre—it consequently cannot wear off nor rub off; it will never fade nor discolor.

The finish is both "hard" and "elastic"—two properties long sought but never before accomplished in a finish; it is also transparent.

It produces a soft shade of brown, very pleasing and restful. It will harmonize with any modern interior finish.

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"Rational Typewriting comes nearer covering every phase of the typing work than any other text I have ever examined," writes one of the thousands of enthusiastic teachers of Rational Typewriting.

Overwhelming proof of the correctness of Rational pedagogy is found in the results of the 1927 World's School Novice Typewriting Championship Contest.

The World's School Champion was Rational trained.

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Of the 38 competing state champions, 76.3% were Rational trained.

The unrivaled success of Rational Typewriting for the past 25 years is due to the fact that its instruction is not confined to one or two phases of typewriting technique. *It covers every phase.*

NEW RATIONAL TYPEWRITING

By Rupert P. SoRelle

was thoroughly revised and rewritten in 1927 and is now published in six different editions—a book for every need.

Send to our nearest office for a free copy of our illustrated booklet entitled "The New Rational Typewriting Series."

The Gregg Publishing Company

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FREE

advice and aid from Visual Education authorities on Motion Pictures in the school

Motion pictures in schools are comparatively new. Equipment is fairly expensive. Before you decide to invest you want to know:

What do visual education authorities say about motion pictures in the school? What has been the experience of other schools? *How will motion pictures help your school?* Which is the best projector for school use? Where can you get films?

Free pamphlet answers these and many other important questions. Gives successful educational and extra-curricular programs used by other schools—tells how motion pictures may be used to raise money for various worthy causes. We will also send a complete description of the new Acme Motion Picture Projector, and if you wish, arrange a *free* demonstration in your own school.

INTERNATIONAL PROJECTOR CORPORATION Acme Division

90 Gold Street New York

Gentlemen:

Please send me *free* pamphlet NS-1 on Motion Pictures in the School, and complete information about the new Acme Motion Picture Projector.

Name .....

Address .....

City ..... State .....

In the Educational Field

CARMON ROSS, supervising principal of the Doylestown public schools, Doylestown, Pa., has been elected president of the supervising principals' department of the Pennsylvania State Educational Association.

DR. H. B. SMITH, superintendent of schools, Lawrence, Kan., has resigned from that position to accept a professorship in school administration at Syracuse University.

AUGUSTINE C. WHELAN, formerly a teacher in the evening high school, Revere, Mass., recently assumed his duties as principal of the Revere High School.

FRANK B. GROVER recently resigned as principal of Skaneateles High School, Syracuse, N. Y., and MYRON STARK has been appointed as his temporary successor.

DR. JAMES N. KIERNAN, dean of the department of education of Hunter College, has been appointed acting president.

DR. F. J. KELLY, dean of administration in the University of Minnesota, has been elected president of the University of Idaho.

ALEXANDER J. BARNES, formerly principal of the Elsinore Union High School, is now principal of the Kauffman Junior High School, Pomona, Calif.

DR. ROBERT DEVER LEIGH, Hepburn professor of government, Williams College, has been selected as president of Bennington College, Bennington, Vt., a new liberal arts college for women to be opened in the fall of 1929.

MARION REILLY, formerly dean of Bryn Mawr College, died recently.

DR. ROBERT M. SLAGLE, president of the University of South Dakota, recently tendered his resignation, effective September 1, 1929.

WILLIAM L. WEST, superintendent of schools, Green Island, N. Y., recently resigned from that position.

H. A. BROTHER, formerly superintendent of schools, Knoxville, Tenn., died recently in California at the age of 84.

DR. TALCOTT WILLIAMS, emeritus professor of journalism, Columbia University, died on January 23.

ALICE E. PENDREY, formerly rural supervisor in Ventura county, has been appointed assistant superintendent of schools, Whittier, Calif.

ELLEN FAULKNER, assistant to the dean of Bryn Mawr College, has been appointed principal of the girls' school of the Milton Academy, succeeding SARAH S. GOODWIN, whose resignation is to take effect in June.

DR. CHARLES K. EDMUNDS, for twenty years president of Lingnan University at Canton, China, and for the past four years provost of Johns Hopkins University, has been elected president of Pomona College, succeeding DR. JAMES A. BLAISDELL, who has headed the institution for eighteen years.

WILLIAM H. JOHNSON was recently elected president of Lincoln University, Lincoln University, Pa.

DR. FREDERICK HORRIDGE, formerly chairman of the department of vocational education at Ohio State University, is now director of vocational education in the public schools of Long Beach, Calif.

THE REV. WILLIAM M. MAGEE, S. J., was recently elected president of Marquette University, Milwaukee.

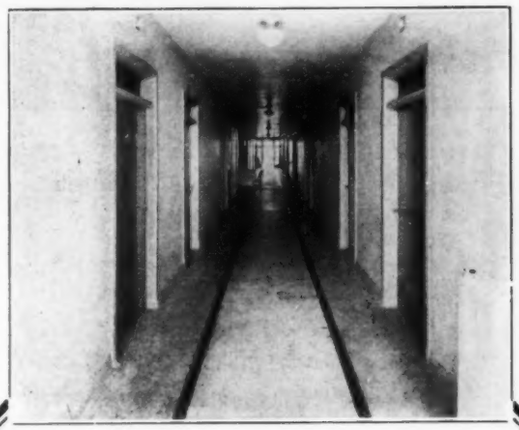
JOHN A. CONE, superintendent of schools of Brunswick and Topsham, Me., for more than twenty years, died following an attack of acute indigestion, Feb. 25.

H. E. CHANDLER has recently resigned as superintendent of schools, Junction City, Kan., to become assistant director of the summer session of the University of Kansas and director of the University Appointment Bureau.

J. W. MURPHY was recently re-elected superintendent of schools, Great Bend, Kan., for a two-year term.

PERRY W. REEVES of Indiana was recently nominated by President Coolidge to be a member of the Federal Board for Vocational Education. He would succeed HARRY L. FIDLER, whose term of office expired in June, 1927.

O. F. HITE has recently resigned as superintendent of schools, Dodge City, Kan.



SILENCE

DISTRACTING sounds caused by hurrying feet are eliminated when Wright Rubber Tile is used on corridor and class room floors. No more scraping sounds of chairs and other noises to interfere with the instructor's earnest efforts.

Wright Rubber Tile has many advantages for school use. First it brings perfect quiet. It is long lasting. Being of rubber composition it is resilient to walk on, restful to those who must spend many hours on their feet. And the great variety of patterns and colors available enable the builder to furnish a floor that will harmonize with any surroundings.

Schools, churches, banks, and many other public and semi-public buildings throughout the country have already taken advantage of the superior qualities of this modern floor. It has proved to be more economical, quieter, cleaner and better in many other ways than any other type of floor.

An interesting chart of color patterns has been prepared. Send for a *free* copy today.

Wright Rubber Products Co.

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Every School Should Have a Band

From the standpoint of mind training alone music study has been ranked with mathematics by such eminent educators as Charles W. Eliot.

Add to this the morale-building effect of the band, the wholesome group spirit which it fosters not only among members, but in the entire student body, and you have potent reasons for a band in every school.

Now Every School Can Have a Band

With beginners it is possible to have a playing band, ready for a complete concert, in 90 days from the first rehearsal.

Conn will arrange all details. Our half-century experience in organizing and equipping bands is available, free. Easy finance plans for complete equipment of individual instruments.

We shall be glad to give details of our plan to anyone interested, without obligation. Write our Band Service Department, now.

C. G. CONN, LTD.

391 Conn Bldg. **Elkhart, Ind.**

CONN BAND INSTRUMENTS

WORLD'S LARGEST MANUFACTURERS

In the Educational Field

DR. ROLLO G. REYNOLDS, provost of Teachers College, Columbia University, has been appointed principal of the Horace Mann School, succeeding HENRY CARR PEARSON, who resigns after twenty-five years of service.

VOLNEY G. BARNES, principal of Madison Central High School, Madison, Wis., is the new president of the Wisconsin Vocational Guidance Association.

FRANK MCCORMACK was recently elected principal of the Nashville High School, Nashville, Ark., succeeding W. J. WHITTHORNE, resigned. He will also serve as athletic director.

S. D. COPELAND, formerly principal of the Houghton School, Augusta, Ga., has been elected assistant superintendent in charge of elementary instruction, Augusta.

E. R. STEVENS was recently re-elected dean of the Junior College and principal of the Senior High School, Independence, Kan.

ALEXANDER S. KUBITZ, superintendent of the White Pine County High School, Ely, Nev., for the past ten years, died recently.

G. CARL ALVERSON was recently appointed superintendent of schools, Syracuse, N. Y., to succeed the late DR. PERCY M. HUGHES. He was formerly assistant superintendent and has been acting superintendent since the death of Dr. Hughes.

J. H. CLEMENT has been re-elected superintendent of schools, Independence, Kan., for another two-year term.

J. H. HURST, superintendent of city schools of Mt. Airy, N. C., died February 17 following a short illness.

RALPH WIEST SCHLOSSER became president of Elizabethtown College, Elizabethtown, Pa., January 1, succeeding DR. H. K. OBER, resigned.

M. C. POTTER, superintendent of schools, Milwaukee, Wis., has been re-elected for another term.

A. H. VEAZEY, instructor in vocational agriculture at Rosewood High School, Rosewood, N. C., recently was named master teacher for the Southern states by the Southern Region for Vocational Agricultural Education, including twelve states and 1,500 teachers.

WILLIAM FLETCHER RUSSELL will be inaugurated dean of Teachers College, Columbia University, on April 10.

ROBERT W. MADDEN, principal of Public School No. 8, North Bergen, N. J., was recently appointed assistant superintendent of schools of North Bergen to succeed the late HERMAN H. WAHLERT.

EARL B. TAYLOR, superintendent of schools, LeRoy, N. Y., has been appointed professor of education and director of extension activities at the University of Rochester, and will assume his position after a year of special training. He will be succeeded at LeRoy by EDWARD W. SPRY, the present superintendent of schools, Oswego, N. Y.

W. O. STARK has again been elected superintendent of schools, Belleville, Kan., for a two-year term.

T. D. OZMENT was recently elected principal of the Union City High School, Union City, Pa., succeeding H. B. EVANS, who resigned to become dean of Bethel College, McKenzie, Pa. Mr. Ozment was formerly principal of the Gleason High School, Gleason, Pa.

BEN G. GRAHAM has been advanced by the Pittsburgh board of education to the rank of first associate superintendent, the position held by CHARLES R. FOSTER, who resigned last spring to become principal of the State Teachers College, Indiana, Pa.

H. O. LEGRANDE recently resigned as principal of the Eureka High School, Eureka, Kan.

Forthcoming Meetings

March 13-16—North Central Association of Colleges and Preparatory Schools, Chicago.

March 16-17—Fourth Annual Junior High-School Conference, New York University.

March 16-17—Private School Association of the Central States, LaSalle Hotel, Chicago.

April 8—Northwest Association of Secondary and High Schools, Spokane, Wash.

April 12-14—Eighth Annual Ohio State Educational Conference, Ohio State University.

April 17-19—American Association of Collegiate Registrars, Cleveland.

May 7—American Council on Education, Washington, D. C.

July 1-6—National Education Association, Minneapolis.

"That's SOME Dessert . . . Gimme Another!"

THIS is often the reception that Gumpert's Vanilla Cream Dessert receives from patrons.

Your palate demands another whether you order it or not. It's the creamy richness, the velvety smoothness, the delicious flavor that hits the «right spot».

Gumpert's Vanilla Cream Dessert is made from pure rich cream, properly flavored with sugar and vanilla. You simply add 2 quarts of water to a 22 oz. package, put it on the stove to boil, and the full creamy flavor is released.

These delicious cream desserts are easy to make—easy to sell. No wonder so many say, «Gimme another!» If you are not using Gumpert's Cream Desserts, write for a sample—we'll gladly send you one.

Gumpert's

Cream Dessert

A PRODUCT *of* S. GUMPERT CO., INC., *Brooklyn, N. Y.*

Sun-ripened Raspberries

—give it This Rare Delicacy of Flavor

PLUMP, luscious red-ripe raspberries, juicy and sweet, are freshly pressed to give Gumpert's Raspberry Gelatine Dessert its incomparable flavor.

Here, truly, is America's favorite all-year dessert. So easy to make in any number of tempting ways —so easy to sell—a dessert that creates new demand, new business. No wonder leading hotels and restaurants from coast to coast are featuring Gumpert's. Quality *does* make a difference!

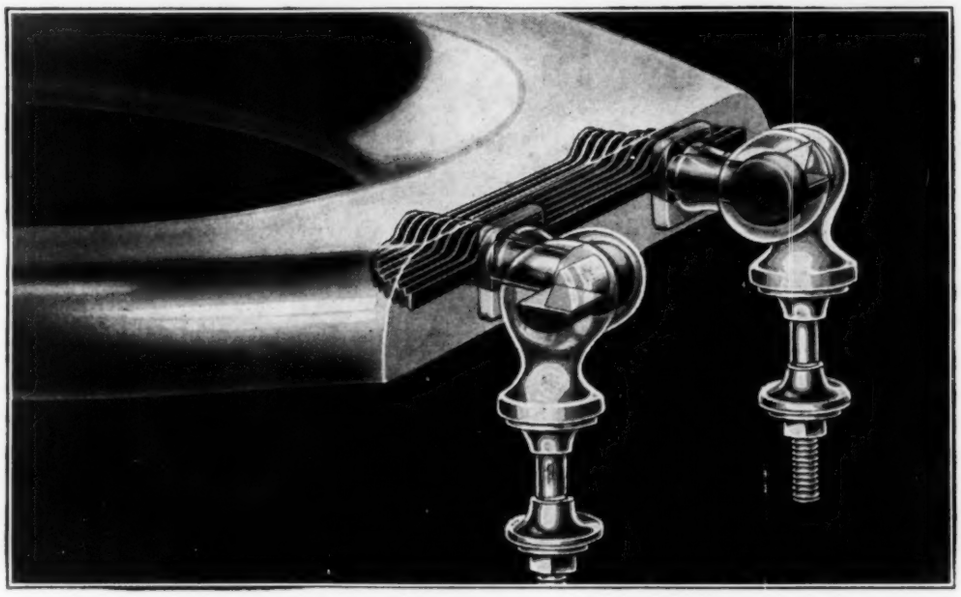
Write today for FREE Recipe Book "Tempting Recipes made with Gumpert's Gelatine Dessert"

Gumpert's
Gelatine Dessert

A Product of S. Gumpert Co., *Inc.* Brooklyn, N. Y.

This New Hinge is *molded* into the seat itself

Whale-bone-ite's supremacy clearly maintained by this new feature



Seat shown is Model 23-968. Phantom view gives details of construction.

ON the union between hinge and seat depends the permanence of your seat installation. Realizing that the unsanitary metal hinge with its cleaning problem and loosely connected parts was a weakness in closet seats, the makers of the Whale-bone-ite Seat have perfected a new-type hinge which is actually part of the seat itself.

This new hinge is molded in one operation as an integral part of the Whale-bone-ite Seat. Re-inforced by a metal die-cast, one-piece insert, it is covered with highly-polished Whale-bone-ite. Thus it has the same strength and finish as the Whale-bone-ite Seat itself.

The makers of the Whale-bone-ite Seat offer this newest feature on all models of both closed and open-back seats. Whale-bone-ite is the only seat having the hinge you see pictured here. It is one more reason why you should specify this finest of seats for your building.

WHALE-BONE-ITE TOILET SEAT

THE BRUNSWICK-BALKE-COLLENDER CO., CHICAGO

Albany	Boston	Chicago	Dallas	Detroit	Kansas City	Minneapolis	Philadelphia	San Francisco	Tampa	Ottawa
Atlanta	Buffalo	Cincinnati	Denver	Harrisburg	Los Angeles	New Orleans	Pittsburgh	Seattle	Washington	Toronto
Birmingham	Charlotte	Cleveland	Des Moines	Houston	El Paso	New York	Richmond	St. Louis	Montreal	Havana

For free cross-section of a Whale-bone-ite Seat, address Dept. 196, Seat Division, The Brunswick-Balke-Collender Co., 623 South Wabash Avenue, Chicago

They Went to Market to Learn Things

A message to administrators from the Publishers of The Nation's Schools

NOT so many years ago the man who knew what was going on in the world was that man who had an occasional opportunity to "go to market." There he went ostensibly to buy, but also to learn from the displays of traders and from the traders themselves what the world was doing. To-day men go to market as before, but the camera, the engraver, the printing press have made it possible for them to keep posted between times—to keep continually abreast of things and to know daily what is going on in the world. And to-day Buyer and Seller alike are taking greater and greater advantage of these daily, weekly and monthly mediums of marketing—the periodical. And publishers are taking an interest in the messages that appear in their advertising as well as in their editorial pages. As a result, readers of specific periodicals like The NATION'S SCHOOLS can learn much by "going to market" in the advertising pages as well as from the editorial pages. For instance, in this issue, these following excerpts from the advertising copy of manufacturers, inform us that:

"When the National Committee for Chamber of Commerce Co-operation with Public Schools and the American City Bureau completed its investigation of 7,150 school buildings in 429 cities, these startling facts were disclosed. Only 5% of our schools are constructed entirely of fire resistive materials. 13% classify as semi-firesafe . . . . 17% are in the class that appear safe . . . . 65% of our schools are unsafe. . . . ."

"Your students do their best work when the kind of sleep they get is considered as carefully as the amount of sleep. Doctors say that sleep is not measured by the number of hours spent in bed, but the number of hours of complete relaxation."

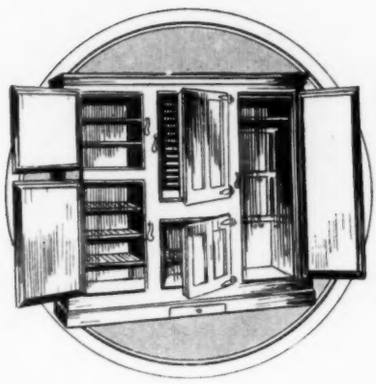
"Classroom quiet is imperative for effective instruction and teaching. No teacher can be expected to instruct properly when competing with noise and din of busy hallways. Distractions and disturbances, these more than anything else, reduce the efficiency of both teacher and pupil. Modern school construction demands the silent study room—the quiet classroom. Anything that tends to interfere with the pupils' concentration on important lessons must be kept out."

"It is not sufficient that a product clean a floor thoroughly and rapidly—it's of equal importance, if not more, that the article used in this cleaning shall have no injurious effect whatsoever on the floor itself. Many floors have been permanently ruined by the use of strong acid or alkaline compounds or cleansers. . . . ."

"School buildings with their necessity for large window areas, demand expert weather stripping if the structure is to be comfortable and healthful. Wind, even more than excessively cold temperatures, lies behind this need, for wind drives incessantly through every tiniest window and door crack, carrying the danger of draughts and the annoyance of dust and dirt. Wind multiplies the burden and fuel cost of every heating plant."

"Modern education takes into account not only mental training through formal lessons but the more lasting, character-forming effect of example on imitative children. It has been well proved that a pleasant, orderly class-room develops a love of order; that appointments which minister to health create an appreciation of the importance of health; that sanitary and well-kept retiring rooms develop instinctive, self-respecting cleanliness."

Only those offering approved products or services for schools are invited to use the advertising pages of THE NATION'S SCHOOLS



For Every Refrigerator Need

REFRIGERATOR requirements of the modern school are perfectly met by McCRAY stock, or built-to-order models, tested in 38 years of use

EFFICIENT cooling service, keeping foods in wholesome and appetizing condition, is the first requirement of refrigerator equipment. The health of the student and the prevention of waste emphasize this service in the case of school or college equipment.

Economy in operation, whether ice or machine refrigeration is used, is the second vital requirement. And economy in operation always outweighs skimping on the original investment.

In year-in and year-out service McCray refrigerators prove their in-built quality. Hidden deep in the walls are vital points of construction which have made McCray the standard of comparison in the refrigerator world.

For 38 years we have held to an unyielding standard of quality. Our reward is an army of satisfied users — more than 250,000!

All McCray models, stock or built to order, may be used with ice or any type of mechanical refrigeration. Remember, whatever the refrigerating agent may be, the refrigerator itself determines the character of service that is delivered.

Send now for our latest catalogs. McCray is the world's largest builder of refrigerators for all purposes — in schools, hotels, clubs, restaurants, cafeterias, hospitals, institutions, florist shops, stores, markets and in homes.

McCRAY REFRIGERATOR SALES CORPORATION
873 Lake St., Kendallville, Indiana

McCRAY REFRIGERATORS

Scenery

Asbestos curtains,
Velour curtains

and

Stage scenery for your
Auditorium stage.

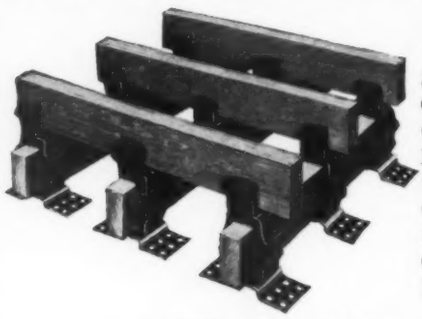
Twenty years of experience in equipping High Schools has placed us in a position to know the particular requirements for your stage.

Write us for further information or request call from our representative.

Twin City Scenic Company

2819 Nicollet Ave., Minneapolis, Minn.
2310 Cass Ave., Detroit, Mich.

SOUND PROOF ENGINEERING



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Schools
Colleges
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Churches
Clubs
Office Bldgs.
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Hundreds of the most modern buildings noise-protected with

STEVENS
Sound-Proof
Engineering

CEILINGS, FLOORS and WALLS

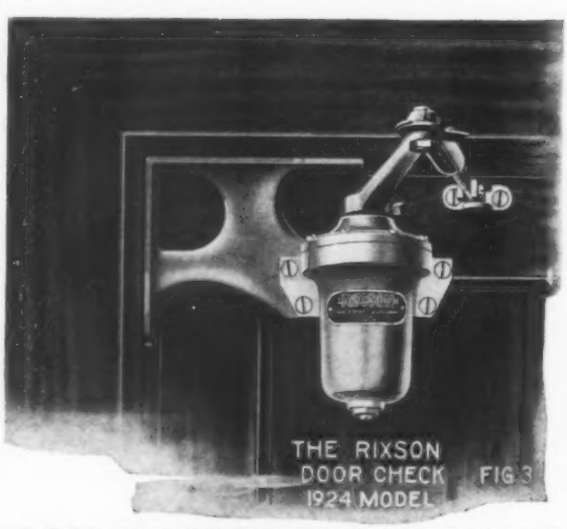
The isolation of sound waves by the Stevens method is a proven engineering success. The mere filling of walls, ceilings and floors with any one or a combination of sound absorbing products, has failed to satisfactorily solve noise problems. Stevens Sound-Proofing devices and scientifically proved methods, which include necessary changes in ventilation flues, are so effective that even the operation of bowling alleys beneath playhouses is no longer considered an impossible combination.

Our engineering department will cheerfully advise with you, without the least obligation.

A Handsome New Catalog on Request

STEVENS SOUND-PROOFING COMPANY
Consulting Engineers and Manufacturers
407 So. Dearborn St., CHICAGO

RIXSON



WE GIVE AN ABSOLUTE TWO-YEAR GUARANTEE COVERING THIS CHECK.

Illustration shows Check with HOLDER ARM; can be supplied with REGULAR ARM.

Operates RIGHT- or LEFT-HAND doors WITHOUT any change in mechanism.

Circular upon request

THE OSCAR C. RIXSON CO.
4450 CARROLL AVE. CHICAGO, ILLINOIS
NEW YORK OFFICE, 101 PARK AVE., N. Y.

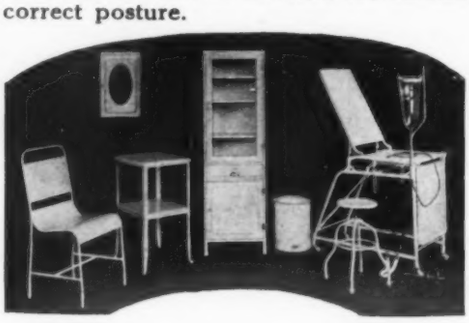
SANISTEEL

Movable Chair Desks

FOR LESS MONEY THAN THE OLD STYLE

Large	$4.95
Medium	4.80
Small	4.65

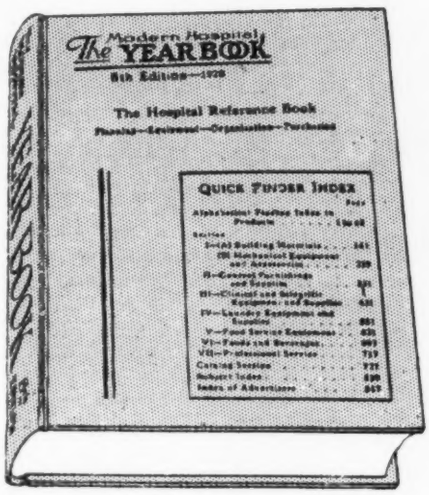
We produced the first steel desk and other school furniture made of sanitary steel. Our products are still in the lead for sanitation and correct posture.



For First Aid and Hospital Room.

Send for Catalogue.

COLUMBIA SCHOOL SUPPLY CO.
INDIANAPOLIS, INDIANA



SCHOOLS, Colleges and Universities having infirmaries and hospitals will find a practical use for The MODERN HOSPITAL YEAR BOOK, 8th Edition, 1928. This annual reference volume, with its 905 pages, is the one complete guide to the problems of hospital planning, equipment, organization and purchasing. It will serve an indispensable purpose, for it combines in one volume essential and detailed reference to the many considerations of this phase of school service.

The price of The YEAR BOOK is $2.50, delivery free. This New Edition has just been released and is now ready for immediate distribution. Send your order to—

THE MODERN HOSPITAL PUBLISHING CO.
660 Cass Street
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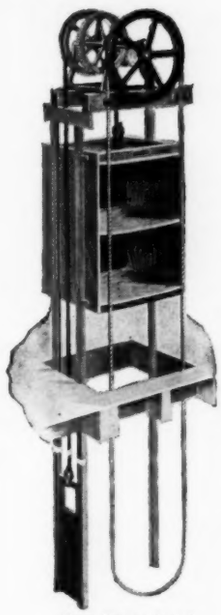
SEDGWICK

DUMB WAITERS AND ELEVATORS



Type "F D C G"

The new Sedgwick Type "FDCG" Geared Automatic Brake Dumb Waiters are designed for school, college, and similar service where average loads range from twenty-five to seventy-five pounds and occasional loads up to two hundred pounds.

Other Sedgwick Outfits are suitable for other requirements.

Write for New Catalog and Consult our Service Department.

Sedgwick Machine Works
165 West 15th Street NEW YORK
Manufacturers of Ash Hoists, Sidewalk Elevators, Trunk Lifts, Etc.

NO FATALITIES
at this school fire

Flame, Heat, Gases, Smoke, Ice, and Snow cannot deter the safe exit of children and teachers from the second or third floor of a burning schoolhouse, when a POTTER TUBULAR SLIDE is attached.

PANICS, which are more to be dreaded than fires, cannot happen, as fire drills are practiced on the Fire Escapes. There is no danger of crowding, the children becoming frightened into jumping or falling by accident, as is possible with other types.

Write for details and specifications and list of schools in thirty-eight States now protected.

POTTER MFG. CORP. 1861 Conway Bldg. CHICAGO
The only Fire Escape with Service Records approved by the Underwriters' Laboratories

Marvin BRAND

COLLARS AND CUFFS

for

Senior Class Gowns

also for

Uniforms

SARATOGA

Write for a

STYLE FOLDER

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NO. 5131

WE SELL DIRECT TO CLASSES AND SCHOOLS

ESTIMATES PROMPTLY SUBMITTED ON SPECIAL STYLES

E. W. Marvin Company

Troy, N.Y., U.S.A.

ESTABLISHED 1845

JARVIS & JARVIS, INC.

DISH SERVICE WAGONS FOR SCHOOL USE

With or Without Trays

THESE wagons may be had with any desired number of shelves, and with removable trays of various patterns and sizes.

The frames are of structural steel, electrically welded. They are built for hard and constant service in large dining rooms.

JARVIS & JARVIS, INC., Wheels

THE wheels and casters used on these wagons are the same high quality as those supplied by us to the leading hospitals. They are rubber-tired and ball-bearing, operating with greatest ease and without sound.

Write for Catalog of Restaurant Service Wagons.

JARVIS & JARVIS, INC.

206 Pleasant Street PALMER, MASS.

Nimble feet need a sure footing

A TREACHEROUS film frequently remains on floors that have been washed with soap powders. Because these materials are difficult to remove rinsing is often incomplete, leaving floors unsafe for the dodging, scampering feet of school children.

Guard against this condition by cleaning your floors with Oakite, the free-rinsing material that does not leave a film because it contains no soap or soap powder. Any floor cleaned with it — hardwood, marble, tile, concrete, terrazzo, rubber or composition—is safe to walk on. Above all, there is nothing in Oakite that can mar these surfaces in the slightest.

Floor-cleaning is but one of *many uses* for this outstanding material. Others for which Oakite has similar important advantages, are listed in an interesting booklet, mailed to school superintendents on request. May we send you a copy?

Oakite Service Men, cleaning specialists, are located in the leading industrial centers of the U. S. and Canada

Oakite is manufactured only by

OAKITE PRODUCTS, INC., 28D Thames St., NEW YORK, N. Y.

OAKITE

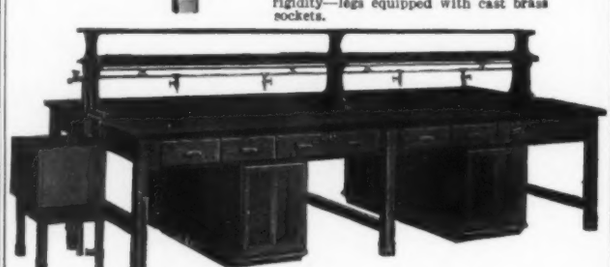
Industrial Cleaning Materials and Methods

PETERSON

Laboratory and Library Furniture

Many hundreds of Peterson installations are now giving excellent service in the nation's leading educational institutions. Write for our Catalogs No. 14-H and No. 15-H before making your selection.

L-5060. READING TABLE of improved construction assuring absolute rigidity—legs equipped with cast brass sockets.



939. STUDENTS DOUBLE-PURPOSE LABORATORY TABLE (Chemistry and Agriculture) desirable when limited space will not permit separate laboratories.

LEONARD PETERSON & CO., Inc.

Manufacturers of Guaranteed Laboratory and Library Furniture

Office and Factory

1222-34 Fullerton Ave. Chicago, Illinois

Distributors conveniently located to serve you.

#275 EMBOSSED BUTTER CHIP
BAKING CUP
SOUFFLET CASE
"9" DESIGN DOILY
"W" DESIGN DOILY
The degree to which "MILAPACO" products are applicable to your food service depends only upon the type of that service.
MILWAUKEE LACE PAPER CO., Meinecke Ave. & Gordon Place, Milwaukee, Wisconsin.
DRINKING CUP SERVICE
PAPER NAPKIN
Milapaco
"C" TRAY COVER
#1504 TRAY COVER

An Applicator Bottle

furnished with our compliments in your own medicine cabinet will soon convince you that

MERCUROCHROME—220 SOLUBLE

(dibrom-oxymercuri-fluorescein)

IS THE

Logical Successor to Tincture of Iodine

FOR

First Aid Prophylactic and General Antiseptic Use

Mercurochrome stains as Iodin does, and it is the stain of Mercurochrome, as it is of Iodin, that shows just where and how effectively the germicide has been applied; it fixes the bactericidal agent in the field for a relatively permanent period which prolongs the asepsis or the sterilizing effect, and it provides for demonstrable penetration into the tissues beneath the superficial surfaces. Inasmuch as Mercurochrome is definitely proved an extremely efficient general antiseptic, it is only reasonable to consider it the successor to Iodin in this field, as it is free from the objectionable features of Iodin, for

MERCUROCHROME DOES NOT IRRITATE, BURN OR INJURE TISSUE

SELL YOURSELVES FIRST

HYNSON, WESTCOTT & DUNNING

BALTIMORE, MD.

HYNSON, WESTCOTT & DUNNING,
DEPT. N, BALTIMORE, MD.

Please send me Mercurochrome Applicator Bottle for personal use.

Name .....

Business Address .....

16th District School No. 2, Milwaukee, a fine example of a modern school embodying Milcor Products.

Young America *deserves more* Firesafe Schools

WHEN the National Committee for Chamber of Commerce Cooperation with Public Schools and the American City Bureau completed its investigation of 7150 school buildings in 429 cities, these startling facts were disclosed.

Only 5% of our schools are constructed entirely of fire resistive materials. 13% classify as semi-firesafe, with fire resistive construction in walls, floors, stairways, and ceilings, but with combustible flooring and roof construction over fire resistive ceiling. 17% are in the class that *appear* safe, with masonry walls, fire resistive corridors and stairways, but ordinary construction otherwise in floors, partitions, roofs and finish. *65% of our schools are unsafe* . . . . . with ordinary joist construction, combustible interior finish, many with wood foundations and roofs on which Fire thrives!

Architects who have opportunities to guide the designing and building of schools will find many products in the Milcor Line vitally important to safety. The new 96-page "Milcor Manual" will bring complete data to you. Shall we send it?

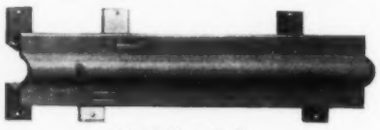
MILWAUKEE CORRUGATING COMPANY, *Milwaukee*, Wis.
Chicago, Ill. Kansas City, Mo. La Crosse, Wis.

MILCOR *for* SAFER SCHOOLS

MILCOR FIRESAFE ROOFING

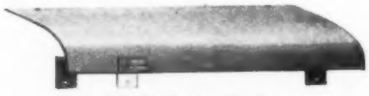
SPANISH METAL TILE
and other forms of roofing in Steel, "ARMCO" Ingot Iron, Zinc and Anaconda Copper

MILCOR FIRESAFE INTERIOR TRIM

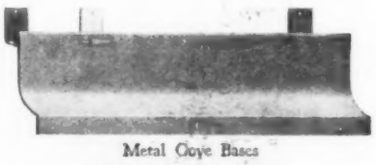


Metal Chair Rails

Metal Chalk Troughs and Blackboard Trim

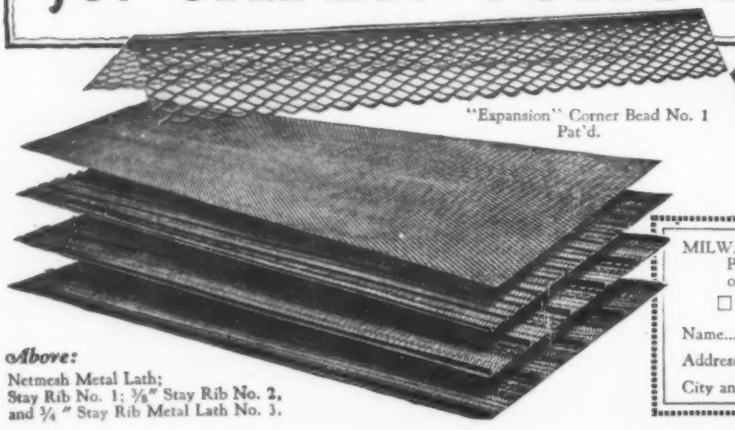


Metal Window Stools



Metal Cove Base

Send for **"The Milcor Manual"**



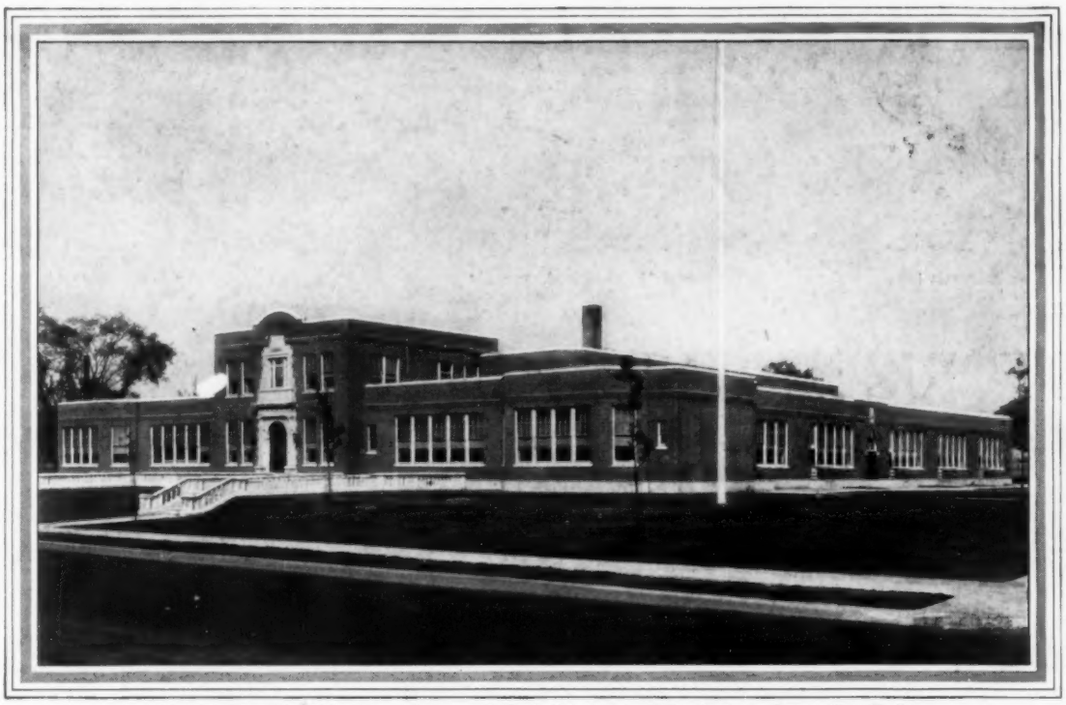
"Expansion" Corner Bead No. 1 Pat'd.

Above:
Netmesh Metal Lath;
Stay Rib No. 1; ⅜" Stay Rib No. 2, and ¾" Stay Rib Metal Lath No. 3.

MILWAUKEE CORRUGATING CO., Milwaukee, Wis.
Please send, without cost or obligation, "The Milcor Manual" on metal lath construction, and "The Milcor Guide."
☐ Check here if interested in Milcor Products for school construction.

Name.....
Address.....
City and State.....

150 Pounds Pressure CRANE VALVES *2500 Pounds Pressure*



The Ben Franklin Public School, Rahway, N. J. Architect, John T. Rowland, Jr., Jersey City, N. J.
Plumbing Contractors, Henry Wilhelms & Sons, Elizabeth, N. J. Crane plumbing materials installed.

LESSONS TAUGHT BY EXAMPLE

Modern education takes into account not only mental training through formal lessons but the more lasting, character-forming effect of example on imitative children.

It has been well proved that a pleasant, orderly class-room develops a love of order; that appointments which minister to health create an appreciation of the importance of health; that sanitary and well-kept retiring rooms develop instinctive, self-respecting cleanliness.

Thus the physical equipment of a school has come to be ranked by leading educators as second in importance only to the quality of the teaching and administrative staffs.

CRANE

Address all inquiries to Crane Co., Chicago

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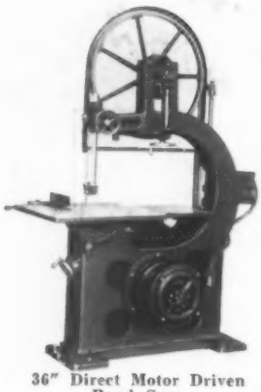
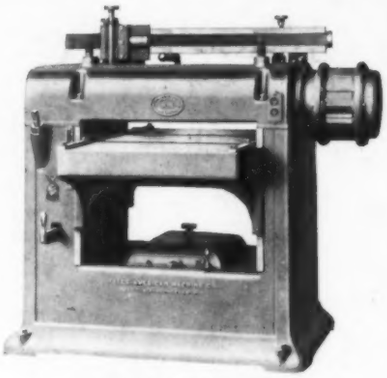


36" Direct Motor Driven Band Saw

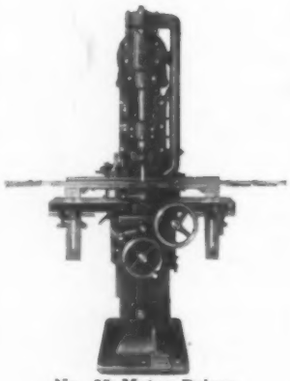
Type G-44 Motorized Straight Line Cut-Off Saw



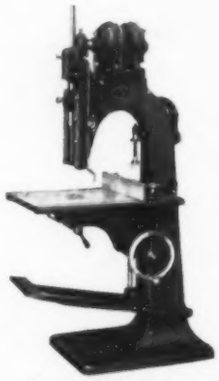
Type B-8 Motorized Single Surfacer

MOTORIZED WOODWORKING MACHINES FOR EVERY SCHOOL REQUIREMENT

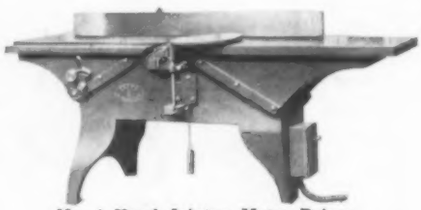
MOTORIZED woodworking machinery invariably is installed in all new schools having manual training or vocational departments. They eliminate practically all belts, are safer to operate, save power, and permit a more systematic grouping of machines in the department. Yates-American, in addition to being the world's oldest and largest manufacturer of industrial woodworking machinery, long has specialized in manufacturing a complete, strictly modern, line of school equipment. The corresponding types of Yates-American school and industrial machines are exactly the same, thus permitting a broader and deeper practical education for the student. A few such machines are shown here. Complete specifications and detailed information on these and other type machines will be sent gladly.



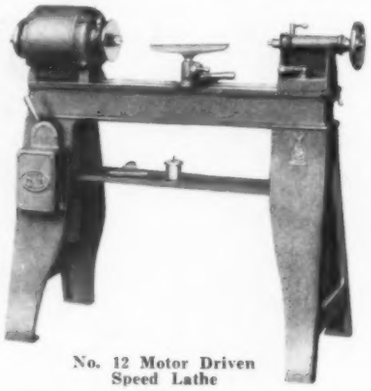
No. 25 Motor Driven Vertical Hollow Chisel Mortiser



No. 2 Motor Driven Vertical Borer



No. 1 Hand Jointer, Motor Driven



No. 12 Motor Driven Speed Lathe

No. 20 Motor Driven Universal Saw Bench

Teach your students today on the machines they will use tomorrow. Yates-American machines are more widely used in school shops and industrially throughout the world than any other make. Those machines most used undeniably are best.

YATES-AMERICAN MACHINE COMPANY

Educational Department **Beloit, Wis.**